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the skies are green and glowing,
where my heart is. . .
FANTASIMULATION ASSOCIATES
3101
STAR TREK
40TH
THE ROLE PLAYING GAME
AS PUBLISHED BY FASA CORPORATION
Jack Photon's
4.0TH FANTAVERSARY REVISION
LET ME HELP
HOUSE RULES
BRIEFING ROOM ONE
CHARACTER SHEETS
GAMEMASTER SCREENS
SUPPLEMENTAL & GMs-ONLY
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MEMORY BANK 2: READING LIST
MEMORY BANK 3: ADD'L READING
MEMORY BANK 4: DEPRECATED DATA
INTERPHASIC SPACE
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STAR TREK: THE ROLE PLAYING GAME
1ST EDITION
CONCEIVED AUGUST, 1982
RELEASED JANUARY, 1983
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Pass the Dice
While you're welcome to all content here, freely offered: please know your offerings are freely welcomed with contentment.
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Ol' Jack's thanks, hearties and congrats go to
Guy McLimore Jr.
Jordan Weisman
Greg Poehlein
Ross Babcock
David Tepool, RIP
FASA 1stEd TEAM

The full range of

Jack Photon's 4.0th Fantaversary Revision

is freely available and found at

jackphoton.space

Library Tapes lists several FASA Trek websites and online resources for your perusal.

Reading Lists FASA Reference Materials for your TOS/TAS Campaign.

Deprecated Data muses on a number of FASA books to *avoid at any price!*

Interphasic Space will take you to parallel dimensions where cyber-enhanced punks rule the streets, dragons inhabit dungeons and some few other flights of fanciful escapes.

Jack Photon's 3rd Edition Framework site remains accessible. While the primary book downloads have been de-linked, support materials such as Sheets, Screens, NPC Packs, etc. remain accessible for those not wishing to upgrade to:

FASA-RPG
Jack Photon's
4.0th Fantaversary Revision
HOUSE RULES

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Please forgive me my forward afterwords first

1973 To weather the storms of family tragedy this four-year-old lashes himself to the promise of Star Trek's tomorrow.

Though show was 'done and gone', the cartoon would soon air those few episodes Saturday mornings for a short time. Ballantine would soon publish several books that also helped nourish this child's imagination and belief in the better future.

While Star Wars, Battlestar, Buck and Wilma and all the others of the day would quickly dominate this child's brain, the release of The Motion Picture and The Wrath of Khan revived the underlying spirit and meaning that is Star Trek to me -and to so many others.

Star Wars might be fun, but Star Trek was the real-deal; *OUR* world's 'promised-future'.

By 1982 and with movies in full swing, the Fantasimulations team at FASA released "Star Trek,The Roleplaying Game", 1st Edition. The game earned numerous awards before falling to the licensing axe ~1988.

Where many RPG's burden players with charts, numbers and maps, role-playing was foremost in Star Trek's mind. Watch the show and you know how to play the game. Simply add dice.

The rules are loose enough to forego maps, yet thorough enough to detail moment-by-moment action; broad enough to bring new encounters on strange new worlds, yet focused enough to define your character's very being and place in the galaxy.

A decade of gamemastering and decades of refinements have allowed me to take a great game and buff and polish the dilithium out of it for maximum depth, shine and ease of play.

These tomes deal strictly with TOS and TAS. Changes made during the movie-era better equate to FASA's 2nd Edition than here. Still more Trek-iterates are best found elsewhere.

Live Long and May the Force Prosper with You. Always.
-2020

Dream fulfilled?

Not something I would have ever thought before this moment but I suppose so, yes.

The game system was part of my life for 21 years, 1983 - 2004. While it slept the last *SIXTEEN* years, it was ever-present on the very back-est-of-burners of mind.

Having dusted my surviving work off, mostly Officer generation, Attribute rewrites, Abilities, Skills and some combat rules (lost my psionic combat rules, drat!), felt a dash of polish would help to show what was really underneath it all.

In so doing, I was inspired to jot a few campaign notes down. Or perhaps it was the campaign notes begged the polish?

Either way, campaign notes meant a cohesive rule system was needed and neither FASA edition was solid enough as was, much less the integration of my rules that was needed all this time.

So here we are with a full tear-down and rebuild of the *ENTIRE* underlying RPG system after some, ooh-too-many hundreds of hours these past pandemical months of 2020.

Once begun, the only logical choice was to bring it all on home to where my heart is, beyond Antares where the skies are green.

So, yes. Dream fulfilled.

Certainly thanks are due to my old gaming crew for playtesting and fun.

As to this specific gift of finishing this "life's work", I can only thank and dedicate my work, my life, my being itself to the most supportive person I've ever known, my wife and this opportunity she has allowed me in this 'indulgence'.

My hope is to distribute this work far and wide on the net and to nest physical copies into personal libraries across the world so that perhaps someone out there someday when may find similar enjoyments as I have in this Star Trek life.

Dice on.
Jack Photon

Game Mechanics

Die Type

This game uses ten-sided dice exclusively to determine the success or failure of a task, to cause damage such as sustained in combat or where a course of action, the reaction of an opponent or similar unknown probability must be determined randomly.

For clarification, the following abbreviations are used throughout this text.

n = number of die
d = dice
10 = die sides

Therefore, 1d10 = one, 10-sided die.
3d10 = three, 10-sided dice.

There are times when fractions occur. These are typically rounded up or down to the nearest whole number as noted below.

*n*d10/2 rd: round down
*n*d10/2 ru: round up

d% = two, ten-sided dice read as 01 - 100.

Examples

5d10/2 ru	= Roll and add five d10, divide by two, round up.
3d10+5/2 rd	= Roll three d10, add five, divide by two, round down.
3d10/2+5 rd	= Roll three d10, divide by 2 add 5, round down
d%/2 ru	= Roll percentiles, divide by 2 and round up.

Quantity

While several dice are commonly used in a variety of situations, two dice are minimal, five dice are okay, 10 dice useful with 20 dice being plenty for most any situation. Most commonly used though are a pair, rolled and read as 'percentiles'.

Percentiles, (d%)

There is a 100-sided die (d100) available. It is more novel than practical, rolling even better than a golf ball. Novelty dice can be difficult to read, badly weighted, roll poorly or have other issues that make them unreliable and best avoided.

To generate 'percentiles', typically 2d10 are used where one die represents the tens column and the other represents the singles column, generating a number from 01 - 00 (100).

Some d10 are labeled 0, 10, 20, 30... instead of 0, 1, 2, 3... If both dice are labeled 0, 1, 2, 3... roll separately with the first die being the tens column and the second die the singles column.

Multi-color dice can be rolled simultaneously by calling one color as the tens column prior to rolling.

Example

A result of '3' and '7' is either '37' or '73'.

If the dice were rolled separately and the first was '3', the result is read as '37'.

If 'purple' is called and the purple die is the '7', the result is read as '73'.

Terms of Art
PC, Player Character: you
NPC, Non-Player Character: everyone else
GM, Gamemaster: runs the world

The Saving Roll

When a skill or Attribute is called upon, d% are rolled for the 'save'. Rolling above a target number is failure, rolling below is a success. If your skill is 50, any roll of 51 or more is a fail while 50 or less is success.

The Critical Nature of "Nat One's" and "Double Noughts"

A natural roll of:
01 is an automatic
CRITICAL SUCCESS

00 is an automatic
CRITICAL FAILURE

If a natural 01 or 00 is the result of a skill roll, that skill automatically gains one point. You have just succeeded so well or messed up so spectacularly that you learned something new.

No skill may progress above 99.

If a natural 01 or 00 is the result of an Attribute roll, some GM-determined minor benefit or harm has occurred.

Examples If the character was lifting weights, a CRIT FAIL may have just pulled a muscle, slipped a disc or other minor wound for 1d10 STUN damage for 1d10 minutes. Whereas a CRIT SUCCESS might break a personal record.

A CRITICAL INTELLECT FAIL might cause a migraine headache and loss of 1d10 INT for 1d10 mins or similar effect.

A CRITICAL INTELLECT SUCCESS might gain some additional insight or other tidbit missed or unthought of.

As can be seen, CRITICAL SUCCESS and FAILS must be judged by the GM in-situ.

The effect could be something minor or personal to one character or may have a grand and sweeping effect no one could have expected, unleashing doom on an otherwise unsuspecting galaxy.

Margins of Success and Failure

Close calls and sure things; tiny mistakes and huge blunders. Then, there's the day-to-day of tasks achieved and failed.

Therefore, a roll within 5% of the Skill Rating or Attribute called upon is a BARE SUCCESS or FAIL. You've only just managed, or missed, by that much.

Conversely, a roll within 5% of a natural 01 or 00 is a CRITICAL SUCCESS or FAIL.

The highly skilled have a greater chance for critical successes and failures than a lesser skilled person otherwise would.

Example 1
A skill of 50 is called upon with no modifiers. 1% die roll = 2.5% skill level. Therefore 2% on the dice = 5% of the skill.

Roll	Result
01	Natural CRITICAL SUCCESS. Skill point gained
02	CRITICAL SUCCESS. Not only did it work, but with some added benefit
03 - 48	SUCCESS. No fanfare. Everything as expected.
49 - 50	BARE SUCCESS. Seat-of-pants, but worked.
51 - 52	BARELY FAILED. Buff and polish. A player *might* be forgiven to think the GM would allow a re-roll. Silly player. :p
53 - 98	FAIL. "If at first you don't succeed, try, try again."
99	CRITICAL FAIL. Things are so bad that not only can one person not fix the issue, the next person likely cannot fix it either.
00	Natural CRITICAL FAIL. Skill point gained

Example 2

A Skill of 90 is called on with no modifiers.

01	Natural Critical Success
02 - 05	Critical Success
06 - 85	Success
86 - 90	Bare Success
91 - 95	Bare Fail
96 - 99	Critical Fail
00	Natural Critical Fail

The mathematically astute will note some fudge in the fractional rounding. This is merely done to emphasize that the highly skilled are unlikely to make simple mistakes. They have lapses of oversight or spectacular errors of judgement.

Margins will clearly vary with every character, skill and situation.

Remember that while Critical Success and Failure margins can be several percentiles across, ONLY Natural rolls of 01 or 00 gains one skill point.

Digging Holes

A character in the face of FAILURE, apart from invoking one and only one LUC roll may not otherwise immediately dig themselves out of the hole they are in with continual die rolls. This can be evinced as the character banging their head against the wall awhile.

To make any further headway or salvage the situation, some intercession, elapsement of time or external factor must jig the action giving warrant to another attempt.

Every situation will be unique. It could be that a life support unit repair can be attempted only every half-hour as the unit resets itself or some other cause. The creative GM should have little trouble adapting this fast rule to the entire galaxy of entropic desolation that is our lives.

Example Our tragic hero rolls a Critical Fail. The character can make a LUC roll to salvage the day. Any success re-establishes the base situational norm.

A Fail may need another person to step in and save the day.

If our tragic hero's LUC roll is itself a Critical Fail, then a secondary person can still step in, but they can only use their skill, no LUC. The situation is just that bad. Keep in mind, it can always get worse. Refer to the following flow chart to get an idea of the process that could ensue.

Above all, the GM cannot allow a never-ending cascade of rolls to evolve.

No amount of rolls by any amount of people subsequent to the initial CRIT FAIL can establish what would have been achieved with an initial success roll at the time.

At best, the Critical nature of the Fail precludes any result other than establishment of the norm prior to the initial skill roll that set this chain in motion.

Group Skill Rolls

There are several ways to approach this and all valid and interchangeable.

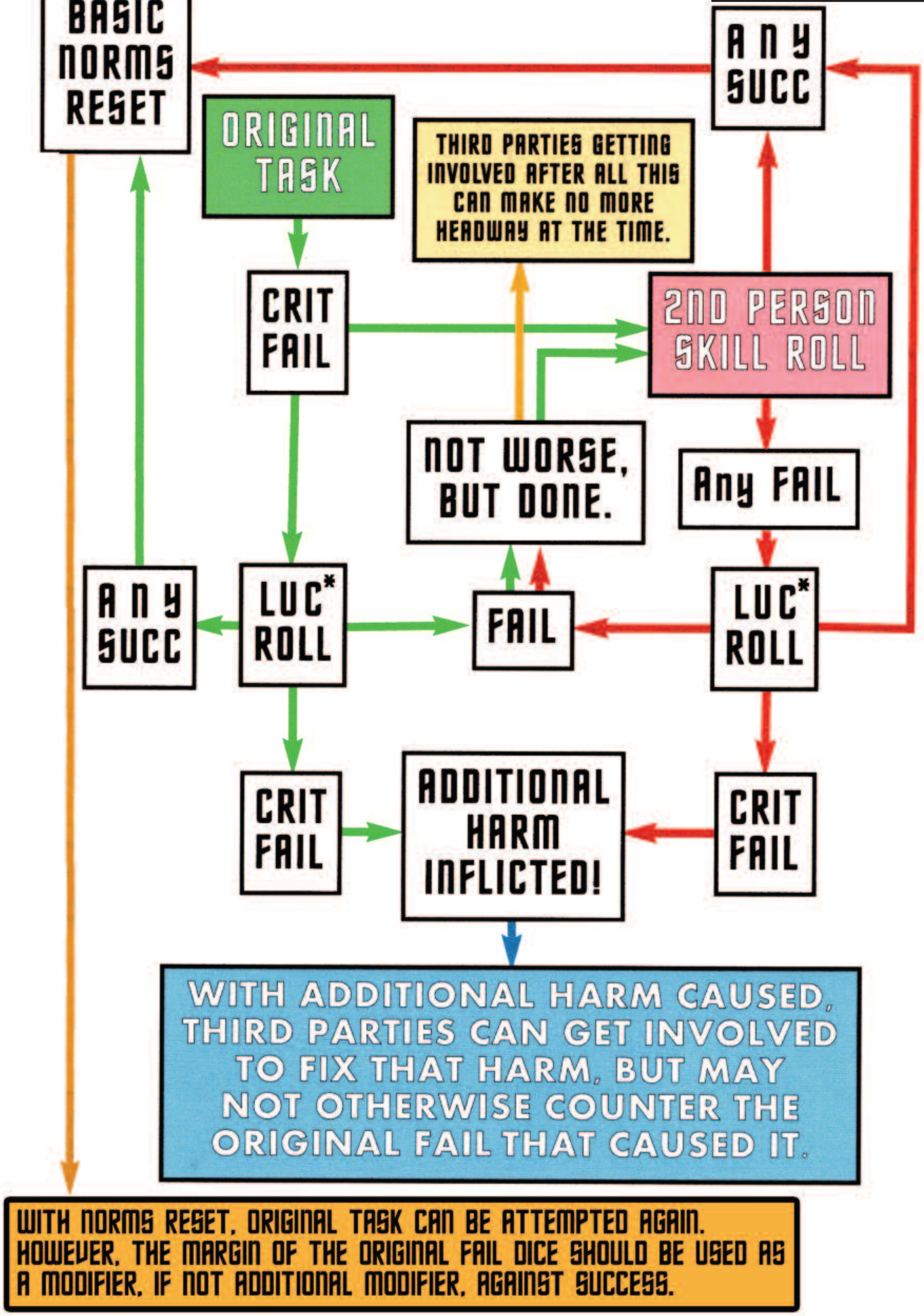
Engineer Scott could roll vs. his ST Eng skill, could average his skill with his Eng Dept's average, could be used as a modifier on top of his team's average, could use his Dept average as a modifier to his skill roll and so on.

In a situation such as this, the GM could leverage in other skills such as Leadership from the Engineer's Mate for rooting the crew on.

Every situation requires GM adjudication.

CRITICAL HELP

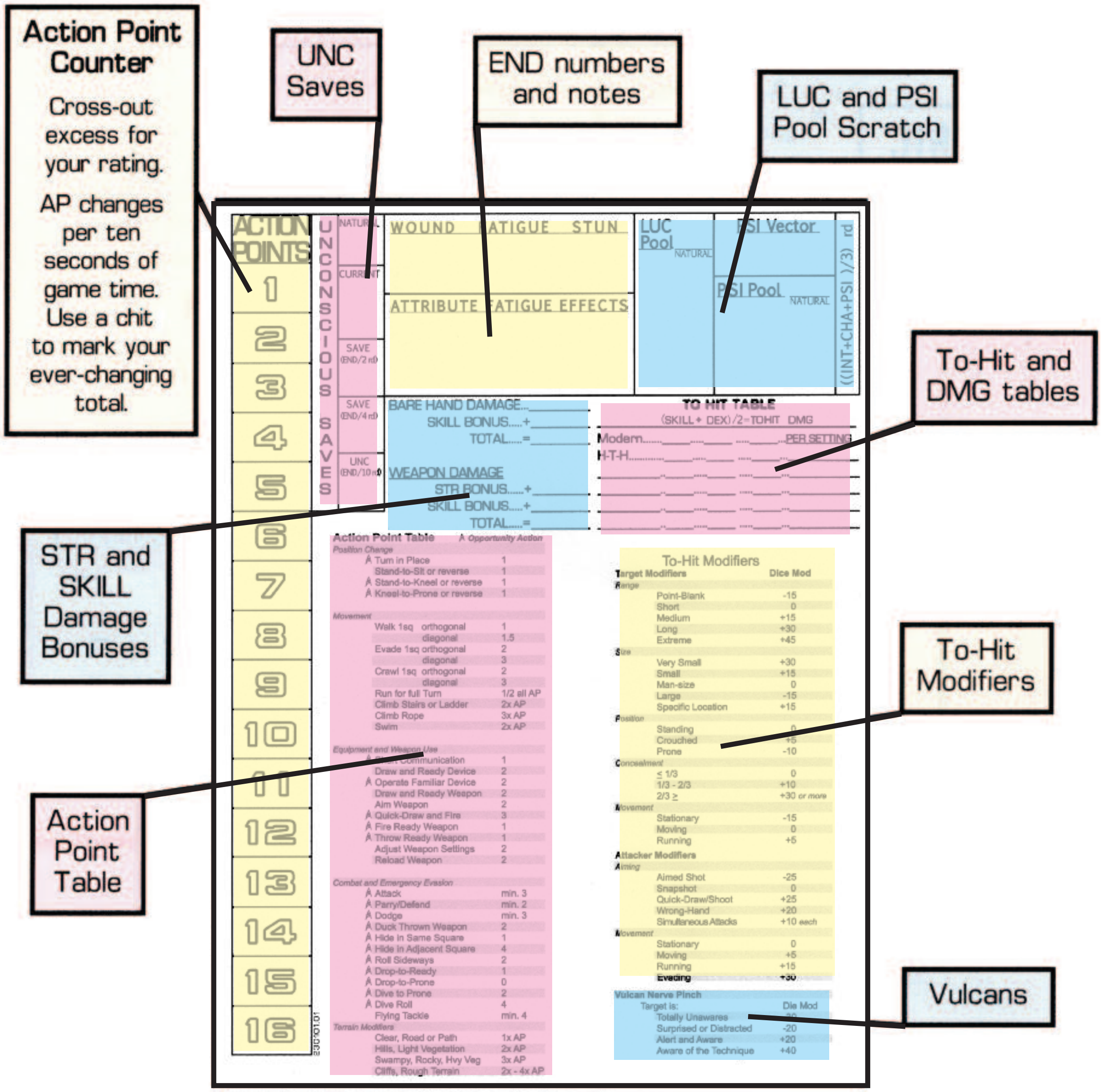
* ONLY ONE CHARACTER OR THE * OTHER MAY INVOKE A LUC ROLL.



WITH ADDITIONAL HARM CAUSED, THIRD PARTIES CAN GET INVOLVED TO FIX THAT HARM, BUT MAY NOT OTHERWISE COUNTER THE ORIGINAL FAIL THAT CAUSED IT.

WITH NORMS RESET, ORIGINAL TASK CAN BE ATTEMPTED AGAIN. HOWEVER, THE MARGIN OF THE ORIGINAL FAIL DICE SHOULD BE USED AS A MODIFIER, IF NOT ADDITIONAL MODIFIER, AGAINST SUCCESS.

Character Back Sheet



Action Point Counter

Cross-out excess for your rating.

AP changes per ten seconds of game time. Use a chit to mark your ever-changing total.

UNC Saves

END numbers and notes

LUC and PSI Pool Scratch

To-Hit and DMG tables

STR and SKILL Damage Bonuses

To-Hit Modifiers

Action Point Table

Vulcans

ACTION POINTS

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

UNCONSCIOUS SAVES

NATURAL

CURRENT

SAVE (END/2 rd)

SAVE (END/4 rd)

UNC (END/10 rd)

WOUND FATIGUE STUN

ATTRIBUTE FATIGUE EFFECTS

LUC Pool NATURAL

PSI Vector

PSI Pool NATURAL

((INT+CHA+PSI)/3) rd

BARE HAND DAMAGE...__________
SKILL BONUS.....+__________
TOTAL.....=__________

WEAPON DAMAGE
STR BONUS......+__________
SKILL BONUS.....+__________
TOTAL.....=__________

TO HIT TABLE
(SKILL + DEX)/2=TOHIT DMG
Modern.......______......______ ......______...PER SETTING
H-T-H.............______......______ ......______...______

Action Point Table Å *Opportunity Action*

Position Change		
Å	Turn in Place	1
	Stand-to-Sit or reverse	1
Å	Stand-to-Kneel or reverse	1
Å	Kneel-to-Prone or reverse	1
Movement		
	Walk 1sq orthogonal	1
	diagonal	1.5
	Evade 1sq orthogonal	2
	diagonal	3
	Crawl 1sq orthogonal	2
	diagonal	3
	Run for full Turn	1/2 all AP
	Climb Stairs or Ladder	2x AP
	Climb Rope	3x AP
	Swim	2x AP
Equipment and Weapon Use		
Å	Short Communication	1
	Draw and Ready Device	2
Å	Operate Familiar Device	2
	Draw and Ready Weapon	2
	Aim Weapon	2
Å	Quick-Draw and Fire	3
Å	Fire Ready Weapon	1
Å	Throw Ready Weapon	1
	Adjust Weapon Settings	2
	Reload Weapon	2
Combat and Emergency Evasion		
Å	Attack	min. 3
Å	Parry/Defend	min. 2
Å	Dodge	min. 3
Å	Duck Thrown Weapon	2
Å	Hide in Same Square	1
Å	Hide in Adjacent Square	4
Å	Roll Sideways	2
Å	Drop-to-Ready	1
Å	Drop-to-Prone	0
Å	Dive to Prone	2
Å	Dive Roll	4
	Flying Tackle	min. 4
Terrain Modifiers		
	Clear, Road or Path	1x AP
	Hills, Light Vegetation	2x AP
	Swampy, Rocky, Hvy Veg	3x AP
	Cliffs, Rough Terrain	2x - 4x AP

23C101.01

To-Hit Modifiers

Target Modifiers		**Dice Mod**
Range		
	Point-Blank	-15
	Short	0
	Medium	+15
	Long	+30
	Extreme	+45
Size		
	Very Small	+30
	Small	+15
	Man-size	0
	Large	-15
	Specific Location	+15
Position		
	Standing	0
	Crouched	+5
	Prone	-10
Concealment		
	≤ 1/3	0
	1/3 - 2/3	+10
	2/3 ≥	+30 *or more*
Movement		
	Stationary	-15
	Moving	0
	Running	+5
Attacker Modifiers		
Aiming		
	Aimed Shot	-25
	Snapshot	0
	Quick-Draw/Shoot	+25
	Wrong-Hand	+20
	Simultaneous Attacks	+10 *each*
Movement		
	Stationary	0
	Moving	+5
	Running	+15
	Evading	+30

Vulcan Nerve Pinch

Target is:	Die Mod
Totally Unawares	[illegible]
Surprised or Distracted	-20
Alert and Aware	+20
Aware of the Technique	+40

The Character Back Sheet

ACTION POINTS

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

UNCONSCIOUS SAVES

NATURAL

CURRENT

SAVE (END/2 rd)

SAVE (END/4 rd)

UNC (END/10 rd)

WOUND FATIGUE STUN

ATTRIBUTE FATIGUE EFFECTS

LUC Pool NATURAL

PSI Vector ((INT+CHA+PSI)/3) rd

PSI Pool NATURAL

BARE HAND DAMAGE...__________
SKILL BONUS.....+__________
TOTAL.....=__________

WEAPON DAMAGE
STR BONUS......+__________
SKILL BONUS.....+__________
TOTAL.....=__________

TO HIT TABLE

(SKILL + DEX)/2=TOHIT DMG
Modern......._____....._____ ....._____...PER SETTING
H-T-H............_____....._____ ....._____...__________
__________.._____....._____ ....._____...__________
__________.._____....._____ ....._____...__________
__________.._____....._____ ....._____...__________
__________.._____....._____ ....._____...__________

Action Point Table

▲ *Opportunity Action*

Position Change	
▲ Turn in Place	1
Stand-to-Sit or reverse	1
▲ Stand-to-Kneel or reverse	1
▲ Kneel-to-Prone or reverse	1
Movement	
Walk 1sq orthogonal	1
diagonal	1.5
Evade 1sq orthogonal	2
diagonal	3
Crawl 1sq orthogonal	2
diagonal	3
Run for full Turn	1/2 all AP
Climb Stairs or Ladder	2x AP
Climb Rope	3x AP
Swim	2x AP
Equipment and Weapon Use	
▲ Short Communication	1
Draw and Ready Device	2
▲ Operate Familiar Device	2
Draw and Ready Weapon	2
Aim Weapon	2
▲ Quick-Draw and Fire	3
▲ Fire Ready Weapon	1
▲ Throw Ready Weapon	1
Adjust Weapon Settings	2
Reload Weapon	2
Combat and Emergency Evasion	
▲ Attack	min. 3
▲ Parry/Defend	min. 2
▲ Dodge	min. 3
▲ Duck Thrown Weapon	2
▲ Hide in Same Square	1
▲ Hide in Adjacent Square	4
▲ Roll Sideways	2
▲ Drop-to-Ready	1
▲ Drop-to-Prone	0
▲ Dive to Prone	2
▲ Dive Roll	4
Flying Tackle	min. 4
Terrain Modifiers	
Clear, Road or Path	1x AP
Hills, Light Vegetation	2x AP
Swampy, Rocky, Hvy Veg	3x AP
Cliffs, Rough Terrain	2x - 4x AP

To-Hit Modifiers

Target Modifiers	**Dice Mod**
Range	
Point-Blank	-15
Short	0
Medium	+15
Long	+30
Extreme	+45
Size	
Very Small	+30
Small	+15
Man-size	0
Large	-15
Specific Location	+15
Position	
Standing	0
Crouched	+5
Prone	-10
Concealment	
≤ 1/3	0
1/3 - 2/3	+10
2/3 ≥	+30 *or more*
Movement	
Stationary	-15
Moving	0
Running	+5
Attacker Modifiers	
Aiming	
Aimed Shot	-25
Snapshot	0
Quick-Draw/Shoot	+25
Wrong-Hand	+20
Simultaneous Attacks	+10 *each*
Movement	
Stationary	0
Moving	+5
Running	+15
Evading	+30

Vulcan Nerve Pinch

Target is:	Die Mod
Totally Unawares	-30
Surprised or Distracted	-20
Alert and Aware	+20
Aware of the Technique	+40

INTERACTING WITH YOUR ENVIRONMENT

The smallest unit of game time is a **"Turn"**. Each Turn is ten Earth-seconds of time.

The amount of action you can perform in a turn is quantified with **Action Points (AP)**. Every player keeps track of their own **AP**.

Action Points are primarily used in combat and time-sensitive, stress situations. AP are not a concern for the mundanity of the daily work grind or off-duty pursuits.

Once you have used all your AP, you can take no other action until the next Turn. Unused AP do not roll-over or accumulate. Fractional AP are lost as well.

Once a character has used the remainder of their actions, the next character goes, back and forth, character to character, faction to faction until everyone has had their turn and all Action Points are spent.

Within a group, the characters shall (quickly) decide amongst themselves the order of their actions. The default routine is for the highest DEX score to go first with the lowest going last.

Initiative

To determine which of multiple groups acts first, each group's best Sm Unit Tactics is rolled against. If there is no Sm Unit Tactics in the group, the best LUC/2 rd is used instead.

This roll is made per Turn of engagement. See die mod's page 19, Combat section.

The group rolling the best margin wins the initiative and can move first or defer to the next group. One member from each group then alternately declares their actions, back and forth until all characters have gone.

If one group has greater numbers than the other, before any dice are rolled they must state how many of that balance will go first in the turn and how many will go last. The middle numbers pair off one-to-one with the opposing force's numbers.

The Opportunity Action

A character need not use all their AP at once. A character may use all, none or some of their AP and hold the remainder in favor of an opponent's move by declaring an 'Opportunity Action' (OA).

Not just any action can be taken as an Opportunity Action. Specific OA's are noted on the Action Point Table that follows.

Any character holding their actions can at any time declare an Opportunity Action during another player's turn. An OA immediately halts the current player while the OA is performed. Once done, the current player continues their turn's actions.

Example Ensign Cannon runs forward to crouch behind a rock and holds his actions.

A Klingon zig-zags his way to new cover. Ensign Cannon declares an OA, stands and fires at the Klingon, misses and drops prone for cover. The Klingon gets behind a tree, readies his disruptor and holds his actions.

Next, Ensign Fodder breaks cover and runs ahead. Before taking two steps, the Klingon declares his OA, firing on Ensign Fodder.

Ensign Cannon declares his last OA, stands, fires and misses the Klingon. Cannon has no more AP, so drops prone for free and sits out the rest of the Turn.

The Klingon fires, hitting Ensign Fodder who goes down. The Klingon takes a pot-shot at Ensign Cannon's rock and aims his pistol to finish off his remaining AP. The Turn ends and the next turn begins.

Ensign Cannon moves from prone to sitting, checks his phaser and yells at the Klingon to surrender, holding his remaining actions.

The Klingon doesn't respond, holding his action points. No one moves. The GM determines a stand off is underway and declares the Turn over. All saved AP are lost and a new Turn begins until a resolution is found.

The Numbers

All species get their DEX/10 rd PLUS one point per limb, excluding the head. The Edoans therefore get a +6 as compared to quadrupeds +4. A human with DEX 79 rounds to 7 + 4 = 11 AP.

Extremely dextrous species such as the Caitians may round their DEX UP instead of DOWN for the slightest of edges. The GM is free to adjudicate the merits.

Action Point Table

Ⱥ *Opportunity Action*

Position Change		
Ⱥ	Turn in Place	1
	Stand-to-Sit or reverse	1
Ⱥ	Stand-to-Kneel or reverse	1
Ⱥ	Kneel-to-Prone or reverse	1
Movement		
	Walk 1sq orthogonal	1
	diagonal	1.5
	Evade 1sq orthogonal	2
	diagonal	3
	Crawl 1sq orthogonal	2
	diagonal	3
	Run for full Turn	1/2 all AP
	Climb Stairs or Ladder	2x AP
	Climb Rope	3x AP
	Swim	2x AP
Equipment and Weapon Use		
Ⱥ	Short Communication	1
	Draw and Ready Device	2
Ⱥ	Operate Familiar Device	2
	Draw and Ready Weapon	2
	Aim Weapon	2
Ⱥ	Quick-Draw and Fire	3
Ⱥ	Fire Ready Weapon	1
Ⱥ	Throw Ready Weapon	1
	Adjust Weapon Settings	2
	Reload Weapon	2
Combat and Emergency Evasion		
Ⱥ	Attack	min. 3
Ⱥ	Parry/Defend	min. 2
Ⱥ	Dodge	min. 3
Ⱥ	Duck Thrown Weapon	2
Ⱥ	Hide in Same Square	1
Ⱥ	Hide in Adjacent Square	4
Ⱥ	Roll Sideways	2
Ⱥ	Drop-to-Ready	1
Ⱥ	Drop-to-Prone	0
Ⱥ	Dive to Prone	2
Ⱥ	Dive Roll	4
	Flying Tackle	min. 4
Terrain Modifiers		
	Clear, Road or Path	1x AP
	Hills, Light Vegetation	2x AP
	Swampy, Rocky, Hvy Veg	3x AP
	Cliffs, Rough Terrain	2x - 4x AP

Unusual Actions

Not all actions are listed. The point cost for new actions should be based on existing precepts and keeping in mind the Turn is ten seconds and most characters have 10-15 AP. Any new idea needs to be deduced immediately before play can continue, debate the details later.

Gravity

Within 10% of your native gravity well, there are no appreciable effects on AP.

As gravity gets heavier or lighter, AP are negatively affected such that factor 2 difference in gravity equals half AP loss. A factor 4 gravity immobilizes all.

Example A 1g Human loses half their AP in 0.5g or 2g gravity wells. At 0g and 4g, the same human is immobilized either by flailing wildly or being crushed to inaction.

The skill **VARIABLE-G OPS** counteracts this AP loss. 20 skill points counteracts 0.1%g effect allowing, slower, deliberate movements without saves. Action or tension of any kind is when saves are made vs. skill. Full AP are out of range due to the slower movements.

The GM will determine the specific conditions and frequency of saving rolls. Perhaps one master roll for normal moving about with specific rolls for highly delicate or fateful choices, surprises and other abnormalities. Every situation will have unique modifiers.

Acclimation to new gravitic environs is a temporal issue for the GM to determine if perhaps a character is operating in an unfamiliar gravity well for weeks on-end.

Skill, Time and Action Points

As a very fast and general rule of thumb, tasks may take time equal to the success margin difference of 100. Easier tasks take less time, harder tasks take more.

An Engineer with a 60 skill on 100 equals 40 seconds/turns/ minutes/days work. A skill of 22 would have 88 time units and a skill of 90 would have 10 time units to complete the same job. Throw more people on it and it goes from there.

Note: As you the GM and player alike become more familiar with how Action Points work, you will find that you rely on them less and less as your understanding of about how much can be done in a ten second turn formalizes in your mind. That said, there will always be times when you must hash it out AP by AP. Generally, once familiarized you'll be able to play out most situations by ear well enough to get by with a satisfactory conclusion for all.

Time

Some people work fast, some slow. The GM determines whether a task will take seconds, minutes, days, weeks, months.

Research and thorough testing can't be beat, but down and dirty often counts most.

Each GM must adjudicate their situation.

The GM could say that Engine repairs will take 50,000 AP to complete. Spread across an engineering team on 8hr shifts will give a completion time with skills and other factors playing a role.

Concentration and Focus

A person can often work faster and more efficiently when quiet and undisturbed. For intense work requiring time and effort, by making FOCUS saves, the time required can be reduced (or added to) by the roll's success/fail margin.

Example A 20pt success/fail margin = 20pts less/more AP or time, actual or percent, etc.

You cannot be disturbed and are totally absorbed in your efforts, almost completely unaware of your surroundings.

You see, hear and know nothing but your Focus. Anything spoken to you elicits no more than "Huh?" "What?" "Yeah." "No."

"Mmm." or incoherent grumblings. You are not even aware enough to defend yourself against surprise or attack.

If disturbed, make a FOCUS roll.
Success = no time lost.
Fail = +(2d10)d10 AP/seconds/Turns, etc to complete.

If attacked, are fully surprised and can only EVADE, PARRY or otherwise RETREAT in a clumsy manner (DEX save minus your FOCUS rating) after the initial hit and then lose initiative and 1d10 AP in the next combat round. No AP loss in the third round and initiative is a straight roll.

Movement Restrictions

Barring walls, large trees, hedge rows, closed doors and similar, a character may move freely through any square including those occupied by other characters.

When moving through a square with another character, player or non-player, your passage is reliant on their permission. Should they choose to stop you, the passerby, all they need do is say so and the passing character must stop.

Stopping the passerby has no Action Point cost to the square's occupant. This is a freebie.

If the occupant has no other action points to interact with the passerby, then occupant is doing no more than physically blocking the square.

If Occupant has action points, they can throw punches, speak or express their thoughts on the matter further.

This one circumstance supercedes the Opportunity Action. ANY actions are now open to the two characters as regards their interactions with each other. Should one choose to use AP on an unrelated character or event, those are restricted to specific Opportunity Actions.

If the Occupant has no AP, the passerby must expend AP to at least shove the occupant aside or otherwise deal with the situation before continuing their original movement. That is, if the passerby now has any AP remaining from this new confrontation.

The next turn begins as normal with initiative rolls.

Movement through Doors

Modern doors sense oncomers and open and close automatically. Doors that don't open may have a buzzer next to them or other small button for activation. This becomes an Operate Familiar Device action which also covers old-fashioned door knobs, bells and so on. A large, medieval-type door starts costing more AP for the size and bulk of them. GM shall adjudicate as needed.

Tools

Equipment on hand can make a task faster or slower.

Type	Time
Prime	-2d10
Adequate	-1d10
Basic	+/- 0
Inadequate	+1d10
None	+*n* d10

Special Attack

The Knock-out Sucker Punch (KOSP)

While similar to a normal Attack, The Sucker Punch costs ALL (FULL) AP, is not an Opportunity Action and is the only thing that can be done in one Turn.

The KOSP usually occurs under one of two scenarios.

Attacker will spend a few moments looking around and talking distractedly, then popping their Target square in the jaw, knocking them out; Kirk to Shana.

Similarly, one may have a palm to the face as the Turbolift door opens to reveal Henchman-1 to Kirk.

The other scenario has Attacker quietly approach Target and land a karate-chop to the back of the neck or spine ala' McCoy to Transporter Chief.

In any case, the balance of the Turn is spent in one of three ways.

One may lower the Target to the ground thereby ensuring their further safety; or one may reposition oneself to better restrain the Target for further interactions; or one may stand over the Target blanky staring at what you have done.

If Hit, Target saves vs. END + margin of success as a penalty modifier. If Fail, fall UNC for 1d10+5 Turns, waking at Full END, but sore for another 1d10 minutes. If Succeed, Target is STUNNED for 1d10 Turns, losing 1d10 AP for each of 1d10 Turns until the effect wears off.

The KOSP uses the same attack modifiers as the Vulcan Nerve Pinch, page 18

ACTION EXPLANATIONS

Position Change

A character must be standing to move normally or prone to crawl or roll. No movement to another square is possible while sitting or kneeling. Players must state if a character is kneeling, prone, or sitting; otherwise character is assumed to be standing. If counters are used, inverting the counter could indicate characters not standing.

Turn in place: If a character decides to remain in the same square but change the direction he is facing, the cost is the same as though he had moved one square and made the facing change. This is an opportunity action.

Stand to sit or sit to stand: This action is used if a character desires to sit in a chair, on a stool, on the ground.

Stand to kneel or kneel to stand: This action is used if a character desires to kneel or rise from a kneeling position. Furthermore, it must be used if a character desires to drop gently or smoothly to the ground or get up from a prone position. This is an opportunity action.

Kneel to prone or prone to kneel: This action is used if a character desires to crawl or to go prone. It also must be used if a character desires to drop gently or smoothly to the ground from a standing position or rise from a prone position. It is an opportunity action.

Stand to sit or sit to stand: This action is used if a character desires to sit in a chair, on a stool, on the ground.

Stand to kneel or kneel to stand: This action is used if a character desires to kneel or rise from a kneeling position. Furthermore, it must be used if a character desires to drop gently or smoothly to the ground or get up from a prone position. This is an opportunity action.

Kneel to prone or prone to kneel: This action is used if a character desires to crawl or to go prone. It also must be used if a character desires to drop gently or smoothly to the ground from a standing position or rise from a prone position. It is an opportunity action.

Movement

Most movement can occur only in a player's turn.

Move: This action is normal combat movement, a rapid walk looking for potential trouble. It is not the most rapid movement possible nor the most cautious movement possible, but a compromise between safety and speed. It may be made into any adjacent square, keeping in mind the exceptions given in the section on **Movement Restrictions**. Because diagonal movement is longer than straight up, down, or to the side, it costs more AP. When combining straight and diagonal movement to go from one place to another, add the AP used together. A change in the direction a character is facing may be made at no extra AP cost.

Evade: Movement takes place as above, but the character is weaving, making him a more difficult target. A change in facing may be made at no extra AP cost.

Crawl: Movement takes place as usual, but the character is crawling to make himself a more difficult target or to be unobserved. A change in facing may be made at no extra AP cost.

Run: This action, allows the character to effectively double his movement rate for a turn, but no other action is possible during the turn. It is fatiguing, however, and may give the character temporary damage for all turns run after the first.

Climb: This action is used to climb anything above the normal ground level, whether it be a wall, a rope, a set of stairs, a ladder, or a cliff. The climbing rate for ropes, walls, or cliffs is 1.5 meters per action. A character climbing stairs may perform other actions, but a character climbing any other object might not be successful at any other action.

Swim: This maneuver is used for all movement through water greater than ankle deep, even if the character is still on his feet. Either regular movement or evasive action may be made straight or diagonally; simply multiply the normal AP cost by 2.

Equipment And Weapon Use

Short Communication: This action is mainly used in combat, where communication between players must be limited to prevent long, unrealistic exchanges of tactical plans. Such exchanges should be limited to short, one-sentence orders such as "Take the one on the right," " Phasers to stun," or the ever popular "Beam us up, Scotty!" This is an opportunity action.

Draw And Ready Device: This action is used to take out/pick up and ready a piece of equipment, such as a communicator or tricorder, to unclip the field medical kit, to unsling and open the med pouch, and other similar things. The equipment must be on or near the person, and its location must be easily accessible. More than one of these may be required to obtain a piece of equipment within a pouch, hidden in the shoe, etc. The action also is used to exchange one device for another, as well as in reverse, to put away or set down a device. This action is required before a device may be used for the first time. It is not required if the device already has been made ready by a previous action.

Operate Familiar Device: This action allows a character to activate a device familiar to him. Extended manipulation of the device may require several of these actions, as may attempts to operate devices with which the character is not familiar, such as captured enemy communicators. Fooling around with control panels, locked doors, and so forth could take many of these actions, perhaps even several turns.

Operate Familiar Device: Operating unfamiliar devices should cost more AP, and the gamemaster should use his discretion on judging this. He should not tell a player how many AP operating unfamiliar devices will cost until the player has committed his character to the action.

Draw And Ready Weapon: This action must be taken before a weapon may be fired or used. If the weapon already has been taken in hand and is in a ready position from an earlier action, it may then be used without readying it again. This action is also used to put away a weapon, or exchange two weapons on your person, putting one away and readying the other. Dropping a weapon or device to the ground costs no action points, but it will lie there until picked up later.

Aim Weapon: This action is not required to fire a weapon, but it does make hitting the target easier. Snapshots, fire without taking time to aim, are faster but less likely to hit.

Fire Ready Weapon: This action is used to fire a weapon already drawn and in the hand, whether or not the weapon is to be fired snapshot or aimed. The results of the shot are determined using the combat rules. This is an opportunity action.

Quick-draw And Fire: This action is used to draw and fire a weapon without aiming. The chance to hit is significantly reduced because of the rapid action. Because of its AP cost, this action is used only as an opportunity action.

Throw Ready Weapon: This action is used to throw a weapon already in the hand, such as a knife or a spear. The results are then determined using the combat rules. This is an opportunity action.

Adjust Weapon Settings: This action must be used to set a phaser for stun or make other adjustments to weapons, such as attaching a Phaser I to a Phaser II pistol grip.

Reload Weapon: This action mainly is used to reload archaic weapons, such as bows, pistols, and submachine guns, that fire ammunition or other projectiles. Most beam weaponry (phasers, Klingon disruptor pistols, etc.) must be recharged, which usually cannot be done in the field. The 2 AP cost is for loading one round if separate rounds are used, or one clip, or one arrow.

Combat And Emergency Evasion

Attack: In order to attack someone hand-to-hand, as in judo, boxing, or grappling, the character must move into the same square as the opposing character. If attacking with a weapon like a sword, dagger, or club, the attack can be made from an adjacent square, and a Vulcan nerve pinch attack may be made from the square immediately behind the target. To attack in either manner, the character must have a minimum of 3 AP and use all remaining AP to make the attack. His portion of the turn will be ended when the attack is complete. Combat is then resolved according to the personal combat rules.

Attack: After any armed or unarmed personal combat, after contact with the enemy is broken, the character may take temporary damage from fatigue. The player must make a Saving Roll against the character's MAX OP END. If the roll is successful, no temporary damage is taken. If the roll is unsuccessful, the character takes 5 points of temporary damage.

Aim And Fire Weapons: These actions are resolved with the combat rules.

Throw Ready Weapon: This action usually is resolved with the combat rules given in the section on **Thrown Weapons Or Objects**.

Reload Weapon: Phasers and other modern sidearms usually cannot be recharged in the field. The cost is applied to each grouping for the weapon. If it uses single shots, the cost is per round; if it uses a clip, the cost is for the clip.

Parry/defend: Once the parry/defend action has been declared, it is effective for the rest of the turn against any direct attack from the front. If, for instance, Lee Sterling is attacked by a Klingon and chooses the parry/defend action, he may defend against any other Klingon who approaches and attacks later that same turn.

If a character successfully parries, the enemy's attack does no damage. In addition, he may declare a special opportunity action at the beginning of the following turn. This action costs the same as an attack, using up all the AP for the turn, but it comes before any other actions in the new turn. During this special opportunity action, the character may make a personal combat attack against *one* attacker whose attack he successfully parried in the previous turn. The attack must be made with any weapon already in the hands; no other weapon may be drawn or otherwise readied for this attack.

Dodge: This action may be used by a character to dodge an attack if he has at least 3 AP left in the turn. The defender must declare his intention to use this action before the attacker makes his To-Hit roll. Ranged attacks may not be dodged, of course, nor can any attack from behind the defender. The action uses all of the character's remaining AP and continues in effect against all attacks until the end of the turn. Successful dodges move the character into an adjacent square, and the attack misses; unsuccessful dodges leave the character in the original square where he may still be attacked, but the attack is made at a disadvantage. Dodging is resolved using the combat rules. This is an opportunity action.

Dodge: Use of this action, which requires a minimum of 3 AP, does not guarantee success in dodging an attack. The action must be declared by a defender before the attacker rolls to hit, and it uses up the character's remaining AP. The defender makes a Saving Roll against his DEX. If the roll is successful, the defender may move into any adjacent square and the attack misses automatically. If the roll is unsuccessful, the character remains where he is, though use of this action makes him more difficult to hit. The attack proceeds as usual, but it is made with a evasion modifier of +15 to the To-Hit Number.

Duck Thrown Weapon/Object: This action may be used to attempt to dodge a weapon or object thrown at the character. This action may not be used to duck projectiles, like bullets or arrows, or to duck sidearm attacks, such as phaser shots; it is effective only against things that are physically thrown, like chairs, rocks, or bottles. The action is resolved using the combat rules and must be performed for each new object thrown. Because it is declared at the time of the attack, it normally is an opportunity action.

Duck Thrown Weapon/Object: Use of this action does not guarantee success in ducking a thrown object. The character doing the ducking must make a Saving Roll against his DEX. His remaining AP are used up regardless of whether or not the duck attempt is successful. The gamemaster may allow modifiers to the DEX Saving Roll according to the object thrown.

If the roll is successful, the character has dodged whatever was thrown. The thrown object will continue on for 1D10 squares, and anyone or anything else in this path may be hit if they do not duck. The gamemaster may adjust the die roll for the object thrown; for example, a chair will not travel as far as a knife. If the roll was not successful, the object thrown hits the intended victim.

Hide: The attempt to hide does not guarantee success. Gamemasters should judge this as seems reasonable for the situation, considering the size of the character, the amount of available cover, the activity of the potential observer, and so on.

For characters to spot hidden non-player characters, require a Saving Roll against INT, modifying for concealment as above.

Hide In Same Square: This action is used to duck behind available cover without leaving the square the character occupies. The protection given depends on the cover available. If there is no cover, this would be a wasted action. This usually is an opportunity action.

Hide In Adjacent Square: This action is used to duck behind available cover in any square next to the character's square (straight or diagonally). The protection given depends on the cover available. If there is no cover, this action is wasted. This usually is an opportunity action.

Roll Sideways: This action is used to roll in a prone position 1 square to either side (not forward or backward). This is an evasive action, and thus makes the character a more difficult target. It is an opportunity action.

Drop Suddenly: This evasive action is used when a standing character wants to drop to a prone position and remain in the same square. It is an opportunity action.

Dive To Prone: A character who is either kneeling or standing moves forward one square and assumes prone position. If the dive is made into sufficiently deep water, the character moves forward two squares and assumes prone position; only swimming actions may be used for the remainder of the turn. This is an evading action, and thus the character is a more difficult target. It also is an opportunity action.

Dive Roll: The character must make a Saving Roll against his DEX to complete this evasive maneuver successfully. If the Saving Roll is successful, the counter is moved 2 squares in the desired direction and the player announces whether the character is coming out of the roll kneeling or prone. If the Saving Roll is not successful, the counter is moved only one square, and the character is prone. Dive rolls can only be made straight forward, to the rear, or to either side; diagonal dive rolls cannot be made.

After a successful dive roll, a character may use a weapon if he has AP left to do so.

Dive Roll: Successful use of this action allows the character to move two squares straight forward, backward, or to the side, and to come out of the roll in either a kneeling or prone position. It is resolved using the combat rules and is an evasive action, making the character a more difficult target. It also is an opportunity action.

Flying Tackle: If successful, this action places the attacker and his target prone, in the square occupied by the target. The attacker must have moved at least three squares directly toward and end in the same square as his opponent. The cost of this movement is included in the AP cost for the action. The attacker must have at least 4 AP to perform this action, and it uses all remaining AP for the turn.

Flying Tackle: This action is resolved using the combat rules. The AP cost of moving the 3 squares is figured into the action's AP cost.

COMBAT AND YOU

In Star Trek, A Game for Roleplaying , players visualize their characters in action, moving from place to place, investigating unusual or strange things, talking together, operating equipment, combatting strange life-forms. Much of the time this action occurs only in the imagination, for it is not important to know exactly where everything is in relation to the characters. Sometimes, however, particularly in dangerous situations, it is important for everyone to know exactly where each character is, which way he or she is facing, and what the environment looks like in detail. In these cases, the gamemaster uses a map to show the environment, such as buildings, ship interiors, outdoor encounter areas, and so on. Then, the players may use counters, miniature figurines, or some other objects to represent their characters.

When movement or other action takes place, each player decides on the actions for his/her character and relays these actions to the gamemaster, who is controlling the actions of all of the non-player characters (NPCs). Together, the players and the gamemaster resolve all the actions using the game's tactical movement system, which is described in detail in this section. This system allows the characters to move from place to place, fire weapons, throw punches, perform first aid, use communicators, or make any other actions that they feel are necessary.

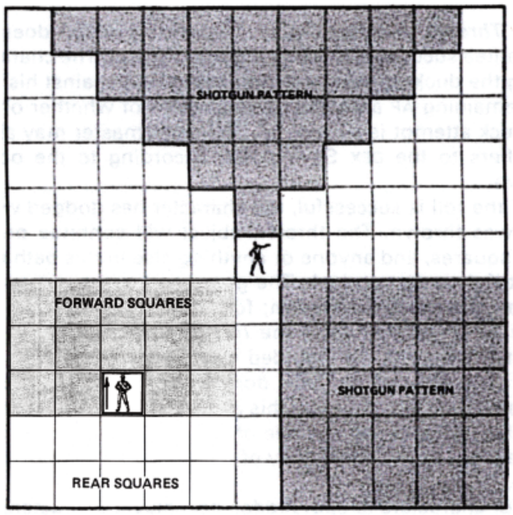
TACTICAL MAPS

The maps used in role playing games usually are drawn on square-grid paper like graph paper with large squares. In this game's tactical movement system the lines are spaced half an inch apart, and so the paper is divided into half-inch squares. The scale of the maps is one inch equals three meters (1 in = 3m, or 0.5in = 1.5m). This means that a distance of 1 inch on the map represents a distance of 3 meters (about 10 feet) in real life; 2 inches equals 6 meters, and so on. Thus each square on the map represents an area 1.5 meters on a side. The diagram below shows this grid.

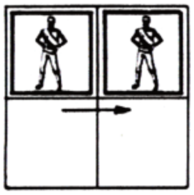
COUNTERS

Cardboard counters may be used to represent the characters. These should be half-inch squares so that they will fit onto the grid. Miniature metal figures, available separately from FASA, may be used instead of the counters.

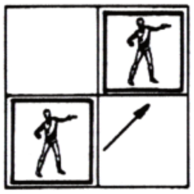
When on the grid, each counter must be placed so that it occupies only one square, as shown below. The way the character is facing should be shown on the counter, either with an arrow or with the word 'front.' Facing affects combat, and so it is important that all counters be placed so that they show each character's facing correctly. The diagram below shows what is considered to be in front of the counter and what is to the rear.

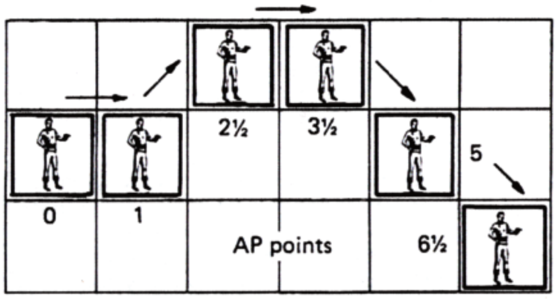


Move 1 Square Up/Down or Sideways – 1 AP



Move 1 Square Diagonally - 1½ AP





Firing Arcs

All weapons are fired in a straight line through a front square of the attacker. The only exception is the shotgun, which fires a pattern that may strike and damage any and all characters in the affected area; the diagram below gives this arc. A separate To-Hit Roll and damage roll must be made for all characters in the affected area.

LINE-OF-SIGHT AND CONCEALMENT

To fire a ranged weapon like a phaser or a bow at a target, the attacker needs a line of sight (LOS) to that target. A LOS exists if a straight line can be drawn from the center of the attacker's square to the center of the target's square without passing through any square containing an obstacle. If no clear LOS exists, the target is concealed; in combat, the To-Hit Number is modified for the amount of concealment.

In determining the concealment, the position (kneeling, prone, standing, sitting, or whatever) of the attacker and the target must be considered, along with the height of obstacles. Concealment may be due to a physical object, such as a desk or a rock, or to smoke or dust clouds. Obviously, someone prone behind a console cannot be fired on (or seen), but neither can that character fire! On the other hand, if the character is kneeling behind the console, peeking over the top, he can fire freely and still remain somewhat concealed behind the obstacle. Most often common sense will help decide what obstacles do and do not block LOS in a given situation.

More than one possible target in a square do not block LOS to a target, but such tightly grouped characters do make it possible to strike the wrong target. Characters in intervening squares block LOS if they are standing, but kneeling or prone characters do not.

CALCULATING THE TO-HIT NUMBERS

Base To-Hit Number

TO-HIT SEQUENCE

1. Determine normal To-Hit Number. ((SKILL + DEX)/ 2 rd)
2. Determine range by counting squares from attacker to target along shortest route. Count target's square but not attacker's. If target is out of range, there is no shot.
3. Determine if LOS is blocked by drawing straight line between center of attacker's counter and center of target's counter. If it is, there is no shot.

Target Modifiers:
4. Determine range modifier and apply to To-Hit Number.
5. Determine size modifier and apply to To-Hit Number.
6. Determine position modifier and apply to To-Hit Number.
7. Determine concealment modifier and apply to To-Hit Number.
8. Determine movement modifier and apply to To-Hit Number

Attacker Modifiers:
9. Determine aiming modifier and apply to To-Hit Number.
10. Determine movement modifier and apply to To-Hit Number.

11. Roll percentile dice. If roll is less than or equal to the modified To-Hit Number, the target is hit and damage is applied. If roll is greater than the modified To-Hit Number, the attack was a miss.

Base To-Hit Number For Thrown Weapons Or Objects

The base To-Hit Number for throwing small objects is half a character's DEX. That for throwing large objects should be a combination of DEX and STR, depending on the circumstance. If a character has *Armed Personal Combat* skill with a knife or other throwing weapon, the base To-Hit Number is calculated as usual: DEX + Skill Rating divided by 2.

Size Modifiers

A *small* target is considered to be one the size of a normal eight-year-old human or smaller. A *large* target is anything the size of an adult horse or larger. Anything in between is considered *man-sized*; the combat system is based on targets this size. Small targets are harder to hit, and so a size modifier is subtracted from the To-Hit Number. Large targets are easier to hit, and so the size modifier is added to the To-Hit Number. When a character aims at a specific part of the target, such as the target's leg, or the disruptor in the target's hand, the target is harder to hit, and so the size modifier is subtracted from the To-Hit Number.

Position Modifiers

Targets kneeling, crouching, or sitting and those prone or crawling are more difficult to hit than standing targets, and so the position modifier is subtracted from the To-Hit Number. Position modifiers are only used if there is no concealment modifier. Diving targets and rolling targets are accounted for with movement modifiers.

Concealment Modifiers

The combat system is based on targets that are one-third or less concealed, and so no concealment modifier is added to the To-Hit Number for these targets. Thus, a human standing behind a crate that covers him up to his knees would have no concealment modifier.

Targets that are more than one-third concealed are harder to hit, and so a concealment modifier is subtracted from the To-Hit Number for these targets. Thus, a human standing behind a waist-level console would have a concealment modifier. A human standing behind a shoulder-high instrument bank, or peeking around a door, or standing behind a partition would have a bigger concealment modifier, and a human peering from a gun slit would have a very large concealment modifier.

Target's Movement Modifier

The combat system was geared to targets moving at combat speed, and thus they have no modifier. Stationary targets are easier to hit, and so a movement modifier is added to the To-Hit Number for them. Running or evading makes a target harder to hit, and so a movement modifier is subtracted from the To-Hit Number for these targets.

Evasive actions are as follows: evade (while moving or swimming), roll sideways, dodge, dive roll, and dive to prone. Flying tackle is a special case. Though it is not an evasive movement, it is similar enough to a dive when viewed by anyone except the target that it is counted as an evasive action; from the target's point of view, the tackler appears to be running.

Aiming Modifier

Aiming a shot before firing gives a better chance to hit, just as quick-drawing before a snapshot gives a poorer chance to hit. For aimed shots, the To-Hit Number is increased by an aiming modifier. For quick-draw shots, the To-Hit Number is decreased by an aiming modifier.

True ambidexterity is rare, and characters are assumed to use the same hand as the player who controls them, unless something different is specified. Only ambidextrous characters can use a weapon with the same skill in either hand. Sometimes a character will need to or want to attack with his off-hand, and so an aiming modifier will need to be subtracted from the To-Hit Number.

It is possible to use two weapons in armed personal combat (like Sulu uses a sabre-and-dagger combination when practicing fencing), or even to fire two ranged weapons, if both can be operated one-handed. Star Fleet officers never carry two phasers, nor are other advanced cultures using energy weapons in the habit of doing this (not even Klingons). Mostly, this skill is used for archaic weaponry. Simultaneous attacks made with two weapons are less accurate than attacks made with either weapon separately. For simultaneous attacks, an aiming modifier must be subtracted from the To-Hit Number for BOTH attacks. Furthermore, unless the character is ambidextrous, an aiming modifier also must be subtracted from the To-Hit Number for attacking with the off-hand.

Attacker's Movement Modifier

If the attacker moves into an attack, he will not be as effective as if he had been stationary before the attack; and if he has been running or evading, his effectiveness is even less. When a character uses AP to move and then to attack or fire, with no other action in between, a movement modifier must be subtracted from the To-Hit Number. When the character is running just prior to attacking or firing, a larger movement modifier is required. When the character is evading just prior to an attack of any kind, an even larger movement modifier is subtracted.

Adjusted To-Hit Number

To find the To-Hit Number used in determining successful hits, all modifiers should be added to or subtracted from the base To-Hit Number. This adjusted To-Hit Number could be greater than *100,* for particularly easy attacks, or it could be less than *0* for particularly difficult attacks.

DETERMINING SUCCESSFUL HITS

To-hit rolls are made with percentile dice just like other Skill Rolls. If the number rolled is higher than the adjusted To-Hit Number, the attack was unsuccessful. If the roll is equal to or less than the To-Hit Number, the target is hit and damage must be applied.

In this game, as long as an attacker is within range and there is an LOS, it is possible to hit. Furthermore, there is always a chance of missing. Therefore, no matter what the adjusted To-Hit Number, a *01* is always a hit and a *00* (100) is always a miss. If the target is out of range or if there is no LOS, then no attack is possible.

Thrown Weapons Or Objects

No special skill is needed for throwing or tossing objects or weapons during combat or other critical situations. The range that small items may be tossed is the same as the range of a thrown knife — a maximum of 20 squares; the chance of success is determined by the character's DEX, as with a normal unskilled attack. If a character has a skill in *Armed Personal Combat* with a knife or dagger, he may throw this weapon at a target as well as stab with it; the To-Hit Number is determined as with any other skilled attack. In either case, the appropriate modifiers are applied, and the To-Hit Roll is made as usual.

NERVE PINCH

This technique, known by many Vulcans, requires great strength and detailed knowledge of the nervous system. The nerve pinch is applied by grasping the area just between the neck and the shoulder and applying proper pressure. If properly done, the victim is almost instantly rendered unconscious, having no chance to cry out or take any action.

In the game, the nerve pinch is used like any other unarmed personal combat, as long as the attacker is within the same square as the target or in the square immediately behind the target. The technique is only effective against humanoids who are not protected by natural or body armor. Thus, Humans, Vulcans, Andorians, Klingons, Edoans, and the like could be affected, but a Gorn's hide is too tough. Other aliens may be too large, or have no definable head and neck, or simply have entirely different nervous systems.

The Vulcan nerve pinch is judged like any other attack. The base To-Hit Number is that for unarmed personal combat. Modifiers to the To-Hit Number are made for surprise, as shown in the table below; these are added to or subtracted from the To-Hit Number.

The dice roll is compared to the adjusted To-Hit Number. If the roll is successful, the victim is reduced to unconsciousness immediately, regardless of his CURR OP END. The effect lasts 2D10 + 10 minutes, and there is no residual loss of CURR OP END upon regaining consciousness.

TO-HIT MODIFIERS FOR NERVE PINCH

Condition	*Modifier*
Victim totally unaware	−30
Victim surprised or distracted	−20
Victim on guard in general	+20
Victim aware of nerve pinch technique	+40

To-Hit Modifiers

Target Modifiers		**Dice Mod**
Range		
	Point-Blank	-15
	Short	0
	Medium	+15
	Long	+30
	Extreme	+45
Size		
	Very Small	+30
	Small	+15
	Man-size	0
	Large	-15
	Specific Location	+15
Position		
	Standing	0
	Crouched	+5
	Prone	-10
Concealment		
	≤ 1/3	0
	1/3 - 2/3	+10
	2/3 ≥	+30 *or more*
Movement		
	Stationary	-15
	Moving	0
	Running	+5
Attacker Modifiers		
Aiming		
	Aimed Shot	-25
	Snapshot	0
	Quick-Draw/Shoot	+25
	Wrong-Hand	+20
	Simultaneous Attacks	+10 *each*
Movement		
	Stationary	0
	Moving	+5
	Running	+15
	Evading	+30
Vulcan Nerve Pinch		
Target is:		Die Mod
	Totally Unawares	-30
	Surprised or Distracted	-20
	Alert and Aware	+20
	Aware of the Technique	+40

FULL, GRAZE, SLIGHT

An energy weapon need not necessarily discharge its full effect on a target. The aim may have been off, the target may have moved, the weapon jostled or any other reason, but mostly for the dice.

Recall your Skill Margins from Book 1. An energy weapon hit is a GRAZE if the To-Hit Roll is a BARE SUCCESS.

Additionally, a target being hit by an energy weapon may use LUC points to reduce damage from FULL to GRAZE to SLIGHT. FULL damage is per the effect as stated for the weapon. GRAZE is half that effect, rounded down. SLIGHT is one-quarter the effect, rounded down.

Falling Damage

It's said that a fall of 20ft is highly, if not actually, fatal to most all humans. Therefore, given most humans have up to END 100, falling equates to:

1d10 per 1ft height fallen
up to terminal velocity
i.e. 10ft = 10d10

Caveat: One may voluntarily leap downwards a distance equal to their own height provided a normal DEX save. FAIL indicates 1/2 damage, (a sprained ankle, popped knee or similar.)

If voluntarily jumping from a greater height, reduce your character's height from the distance and that is the damage, assuming a DEX save for their height is successful.

Surprise

Immediately before the Surprise, both parties make a Group Surprise Roll on each party's best Perception ability.

If the group to be ambushed is actively searching for an ambush, the group averages its best Small Unit Tactics with best Perception to detect it.

The ambushed group has a modifier of -05% per 20pts of the ambushing parties LOWEST Stealth or HIGHEST Small Unit Tactics skill, whichever is lesser.

If the ambush succeeds, each member in the ambushed group loses 1d10 AP for the first round, 1d10/2 ru AP the second round and no penalty in the third round.

If the ambush backfires, each ambusher loses 1d10/2 ru AP for the first round and no penalty in the second round.

However, before any dice are rolled for the second Turn, the Ambushing Leader must make a COOL save with a negative modifier based on how badly the ambush failed. Round 3 will need a straight Leadership roll. No rolls for round 4.

If that COOL (and Leadership) roll succeed(s), ambushing forces remain mustered and fight on per normal combat rules.

If either COOL or Leadership roll fails, tactical advantage is lost and forces are fighting a defensive action with increasing desertion and other chaos ensuing.

1d10/2 ru turns after failing the Leadership roll, a second Leadership roll can be made to rally remaining forces for a riposte. Modifiers include the remaining forces number, condition and personal loyalty at that point.

Failing any of that, ambushing forces are fully routed and will surrender or directionally flee exactly opposite the perceived enemy advancement.

Actively searching for an Ambush doubles or quadruples movement time and AP costs.

Initiative Modifiers

Apparently winning	-10	cumulative per Turn
No edge	+/- 0	
Apparently losing	+10	cumulative per Turn

Determining Damage Done

If an attack is successful, the target may take damage. The Weapons Table gives the number of damage points for each weapon. Some weapons give a pre-determined number of damage points, while damage from others is determined by a die roll, or perhaps a die roll with a bonus. For example, the listing for the archaic M1 Carbine is *4D10 + 10*. This means that when determining the damage, the player should roll 4 ten-sided dice and add a bonus of 10 to the result.

For some weapons, there are several listings depending on the setting on the weapon. For example, the Phaser I, when set on stun, does a standard 75 damage points with each successful hit. On the other hand, when set on disintegrate, no damage roll is necessary; the disintegrate setting totally vaporizes any man-sized or smaller target it hits solidly. Any larger target has a man-sized hole in it, which will kill any normal, living creature or make a mess out of a large console or a wall! This perhaps explains why *Modern Weapon Marksmanship* is not possible as a background skill.

Damage from a graze is given in the *Graze* column of the Weapons Table. If no number is given in this column, graze hits are the same as normal hits and give normal damage.

Damage done in unarmed combat is largely dependent on STR, as shown in the table on page 46. The Skill Rating in *Unarmed Personal Combat* modifies this damage by +1 point for every 10 points of skill. Natural weapons, such as fangs, claws, or the like, may add to the damage.

Armor

Armor may be natural, as on some creatures, or it may be artificial. In either case, if the target has any armor protection, subtract the armor rating from the damage given. If the result is 0 or less, no damage is taken at all. Armor is effective against hand-held weapons, against damage in unarmed combat, and against archaic projectile weapons or thrown weapons. It is ineffective against modern sidearms.

Parrying Attacks

Parrying requires a Saving Roll against DEX. If the roll is successful, no damage is taken. If the roll is unsuccessful, damage is given as usual. Attacks by an unarmed opponent or one who has no ready weapon may be parried or blocked without having any weapon or object to parry with. Attacks with a chair, sword, club, or the like, require that the defender have a parrying weapon or some other maneuverable object (like another chair) with which to intercept the attack, or no parry is possible. Ranged attacks (arrows, phaser fire, thrown daggers, etc.) cannot be parried, of course, nor can any attack from behind the defender.

Once the parry/defend action has been declared, it is effective for the rest of the turn against any direct attack from the front. If, for instance, Lee Sterling is attacked by a Klingon and chooses the parry/defend action, he may defend against any other Klingon who approaches and attacks later that same turn.

The Attributes of ENDURANCE

END is a big one and covers your character's ability to function in a conscious state.

If you are attacked, **WOUND DAMAGE** comes off your END rating. If you are worn out and exhausted, **FATIGUE DAMAGE** comes off your END rating. If you are boxed in the ears, hit your head, are psionically attacked or simply hit by old-fashioned energy weapons, you will take **STUN DAMAGE** off your END rating.

If you are damaged and weak, the weaker you are the less you can do; a weakened END means ALL your other Attributes are weakened too (excepting LUC only).

Ouch, this is starting to hurt. A lot! So let's get some definitions going then.

Wound Damage is semi-permanent in nature. WOUNDS heal at 1/20th END per day unless your END is below 1/2 normal rating. In this case, the character is confined to quarters until 1/2 END+1 is regained and can then return to active duty.

Below 1/4 END, the character is confined to Sickbay until END is at least 3/4 normal+1 and then released to duty.

Fatigue Damage is temporary and goes away within hours at most. FATIGUE wanes at the rate of 1/10 END per 30 minutes (180 turns) of **REST**. Hikes, carrying loads and so on are not resting. Stretching out, laying down, not moving in quiet conditions is resting. Loud, chaotic environs make for **DISTURBED REST**, healing 1/20 END per 30 minutes.

Stun is a temporary form of **Damage** and also an **Effect**. STUN typically wears off quickly, 1d10 Turns/Seconds/Minutes and is most often situational. The Stun effect is similar to a delirium or mental wooziness with delayed response times and comprehension issues. Stun damage such as from a Phaser weapon is more of being knocked out. A mild delirium will affect those regaining consciousness from energy weapon stun and will remain for 1d10 Turns at which point the character will be fully alert and on the case.

While STUN and FATIGUE are non-lethal forms of damage, they can quickly lead to death under bad circumstances.

Coup D'Grace

Once the character goes unconscious, they can no longer take STUN damage until they regain consciousness.

BE AWARE that the unconscious DO take WOUND damage not off their current END rating, but off their current STUN or FATIGUE rating instead. Oops!

There is no need to spend time bludgeoning a character repeatedly when a single, simple hit will suffice to dispatch them. Not that Starfleet personnel go around dispatching their enemies. Just so you know and see that a stunned character is far easier to kill than a conscious one.

Fatigue Saves

The character is required to make Fatigue save against their END for certain situations. If the save FAILS, the character takes 5 points of FATIGUE damage. Fatigue Damage can be fatal.

RUNNING full speed (using double the amount of all available AP for movement only during any turn).

EVADING full speed (using all available AP for move-and-evade only during any turn)/ -20 to die roll for save.

SWIMMING during full turn.

DIFFICULT TERRAIN—using over ½ available AP for movement over rugged terrain such as steep hills, sand, snow, rubble, etc.

COMBAT—after any combat involving hand-to-hand or hand weapons (swords, knives, etc.) fighting, once contact with the enemy is broken.

All of the above activities require an END save (against normal END) to avoid the fatigue loss of 5 END points.

If character takes enough damage of either type, the result will be unconsciousness. Death can result from wound damage unless medical treatment is received.

Weakened Conditions

Definitely cloudy with some major hurt across the region with lots of "Owwww!' and "Oooooh, that smarts!'.

When operating below one half END, your entire body and mind are weakened as well. You can't lift as much, your fingers fumble more, your brain slushes, your tongue slurs and you just aren't there.

At 1/2 END, Attribute loss is on a 1 - 1 basis so that at 0 END, each of the other Attributes would have temporarily lost up to 1/2 the character's END rating off each of their own totals. Once the character attains 1/2 END+1 again, Attribute effects are fully negated for game purposes.

IF however END attains and then falls below 1/2 rating before first attaining 3/4 healed, then all Attributes immediately return to their most fully dilapidated condition prior to regaining that 1/2 END and will remain fully dilapidated until 3/4 END is achieved at which point each Attribute returns to full ratings.

When a character is operating at 1/2 END or less and attempts to take any actions whatsoever, they must make a save against their current END rating and then a save against any relevant Attribute at its current rating.

Attributes affected are STR, INT, DEX, CHA and PSI. LUC is unaffected, but COOL...

If COOL is 50 or less, then will deteriorate point-for-point as END goes down and into panic at impending doom.

If COOL is 51+, as END goes down, COOL goes up point-for-point as you take heart in the welcoming embrace of ultimate fate.

Example, a character with END 78 is now reduced to 30 and the character attempts to lift something heavy. FIRST a roll of 30 or less on END is necessary. If that fails, the lifting cannot be attempted and another attempt can be made in 1d10 minutes (-1 minute per 10% current END).

If that END roll of 30 succeeds, a STR roll must then be made to make the lifting attempt. If good, good. If failed, then per above another attempt can be made in some minutes time thereafter.

Numbers to Watch

1/2 END	1 roll unconsciousness, 1 roll per action, plus relevant Attribute or skill save	At 1/2 END by injury, fatigue or stun, you save vs. full END rating or fall unconscious for 2d10+10 minutes
1/4 END	1 roll unconsciousness, 1 roll per action, plus relevant Attribute or skill save and 1 roll UNC on completion	At 1/4 END, you save vs. 1/2 END rating or fall unconscious for 4d10+20 minutes.
1/10 END	Auto-wash. Smoke 'em if you got 'em. To quit was your goal.	At 1/10 END, you are unconscious and your current END **must** be raised to 1/10 END +1 before regaining consciousness 6d10+30 minutes later.
0 END	Time for 'that talk'. No. Not that one. The other one. Right.	NO form of healing can begin until 1/10 END+1 is attained. Consider yourself at Death's Door having just rung the bell to see if anyone's home as it's getting late and you could use a place to stay the night, sheltered from the coming storm.

END Fatigue on AP

As mentioned, DEX loss equates to END loss at 1/1 ratio, *once* END reaches 1/2 rating.

Re-calculate your Action Points as your DEX is reduced due to Fatigue.

When the cause of unconsciousness is temporary damage (such as phaser stun or heavy sedation), the faster healing rate for this type of damage will cause a person to come above the threshold quickly. Physical injury, because it takes much longer to heal, may leave a character in a coma until medical help can raise his END.

A character who is unfortunate enough to have the END score reduced to zero or below by wound damage is mortally injured. Unless medical help is speedily available, the character will die. Keep track of the number of points of END the character is reduced below zero as a negative number, as the extent of this damage is important in determining if the character can be saved. (See Medical Aid and Recovery.)

A few examples will help make unconsciousness, recovery and death easier to understand. Suppose during a battle near the Romulan border several Star Fleet officer are injured by Romulan hand disruptor fire, and several Romulans are captured after being hit with phaser stun. Below are the statistics of the men in question.

LT. CARSON: END=77 UNCON. THRESH.=7
ENS. YAMOTO: END=58 UNCON. THRESH.=5
ENS. TELEN: END=66 UNCON. THRESH.=6

SUBCMDR. MAVA: END=82 UNCON. THRESH.=8
CENTUR. HANTAL: END=73 UNCON. THRESH.=7

Romulan Subcommander Mava was hit solidly by a phaser on stun, which does 75 points of temporary damage. This brought him one point below his unconsciousness threshold. Phaser stun effect lasts a number of minutes equal to 2D10+10, according to the weapons charts. Mava rolls 2 10-sided die for a score of 11 total, plus 10 for 21 minutes of unconsciousness. By that time, the one point of damage beyond the threshold will have regenerated, so that is when Mava will wake up. Once he does, he will have no END loss (permanent or temporary) from the stun effect. (It's sort of like passing out from too much alcohol, with no hangover.)

Hantal was grazed by a stun shot first, taking 25 points of non-permanent damage for a new END score of 48. He was not reduced below half, so carried on the battle and was grazed again. Now reduced to 23, he rolled a save on END and came up with an 84 on % dice. Hantal was then out for the count, and rolled a total of 7 on 2 10-sided dice, plus 10 for a total of 17 minutes of unconsciousness. He, too, will be at full END once he awakens from stun.

Carson was injured by a disruptor bolt which hit him solidly. He was reduced to a near death before he was found. Advanced medical techniques kept him alive, but he has a lot of healing to do. In a few days, he will heal to above his unconsciousness threshold and come out of his coma.

Yamoto was sent for reinforcements, having to run for miles across rough terrain. In so doing, he failed a number of saving throws for fatigue until his END dropped below half. He then failed his unconsciousness throw and passed out from exhaustion. Fortunately, he was not reduced below his threshold, so once his period of unconsciousness was over (2D10+10 minutes), he woke up. He did regain some END lost from fatigue during his nap, but not all of it, so he had to slow down as he continued rather than risk missing another save and passing out again. Now, several hours after his ordeal, he is well on his way to feeling fine again!

Ens. Telen may get a citation for bravery under fire. He was struck a grazing shot by an enemy disruptor bolt (25 points damage, reducing him to 41; no save necessary yet), but stunned and captured the enemy officer anyway. Later, he was jumped in hand-to-hand combat by another Romulan (taking 11 more points of damage; now he's less than half and must save vs. END or pass out), but overcame his injuries with a successful saving roll and subdued the enemy, making a second capture! He valiantly held off two more attackers until hit by another grazing disruptor shot (25 more points, bringing him to END 5) and rendered unconscious (because he's now below his threshold and must pass out). Fortunately, he was rescued by a group of reinforcements, and with prompt medical help is beginning his recovery!

One more note on unconsciousness and recovery. When a player character's life is threatened or unconsciousness on his part would cause some especially bad occurences (such as the failure of an important mission), gamemasters are urged to give a LUC save attempt. If the LUC save is successful, the player finds some inner reserve of strength and fights off unconsciousness. The LUC save is intended to give characters a last-ditch chance. Let Fate take a hand where necessary.

It's called a "Perseverance Save", Fasa. -Ed ;)

Medical Aid and Recovery

The advanced medicine of STAR TREK's time can go a long way toward accelerating a character's recovery from END loss. There are limits to what even Dr. McCoy and his colleagues can accomplish, however. (For example, the condition of Captain Christopher Pike after his accident in *The Menagerie*).

A character who suffers mortal injury (END reduced to zero or less) will die if her/his condition is not treated promptly by a qualified individual. Emergency first aid is required to prevent death, and such can be provided by any character with Medicine skill.

Once a person with Medicine skill reaches the injured character, a saving roll on the Medicine skill appropriate to the race of the injured character must be made to determine if life can be preserved. If the only skilled medic available does not have the appropriate types of Medicine skill (such as someone with only the Medicine (Human) skill trying to aid an injured Vulcan), only ½ the available Medicine skill level is applied for the saving roll.

The saving roll is modified by a number of factors, including extent of damage below the zero level, the medical equipment available, and the amount of time that has passed since the character reached the zero level. These modifiers are shown in the table below:

EMERGENCY FIRST AID SAVING ROLL

Make saving roll on appropriate Medicine skill, with the following modifiers to the number rolled:

EMERGENCY FIRST AID SKILL ROLL MODIFIERS

Condition Present	*Modifier*
No medical equipment available	no modifier
Using medical field kit/first aid kit only	− 5
Using med pouch (Star Fleet or Klingon issue)	− 15
Using non-Star Fleet hospital or sick bay facilities	− 1 to − 20
Using Star Fleet hospital or sick bay facilities	− 25
Prior attempt(s) at first aid, successful or not	− 5 total
Per minute since zero MAX OP END was reached	+ 1
Per damage point below zero MAX OP END	+ 1
Additional personnel assisting	no modifier

It is clear that time is of essence in saving the life of a mortally injured individual. Generally speaking, if transportation to Sick Bay would take more than 15 minutes, it is better to apply first aid on the spot, even if no equipment is available. Of course, only one person's Medicine skill level can be used here, so it should be the highest available. There is no adjustment for having assistants during first aid procedures.

If the roll succeeds, the injured character is stabilized at an END of 1. Further healing will take place at the normal healing rate, unless specific drugs or procedures are used to hasten the process. If the roll fails, the patient remains at the current mortally wounded level of END. Another attempt may be made if equipment or more skilled assistance becomes available, but time continues to tick away. (Each attempt takes 5 minutes itself). If at any time the adjusted roll needed drops to zero or less, the patient is irretrievably dead.

Again, an example will help illustrate the procedure. Ens. Carolyn Greentree is a security officer assigned to a landing party. While making her way through some rough, mountainous territory, she is injured in a landslide. Her basic END is 54, and she takes 57 points of damage, mortally injuring her. Without help, she will die.

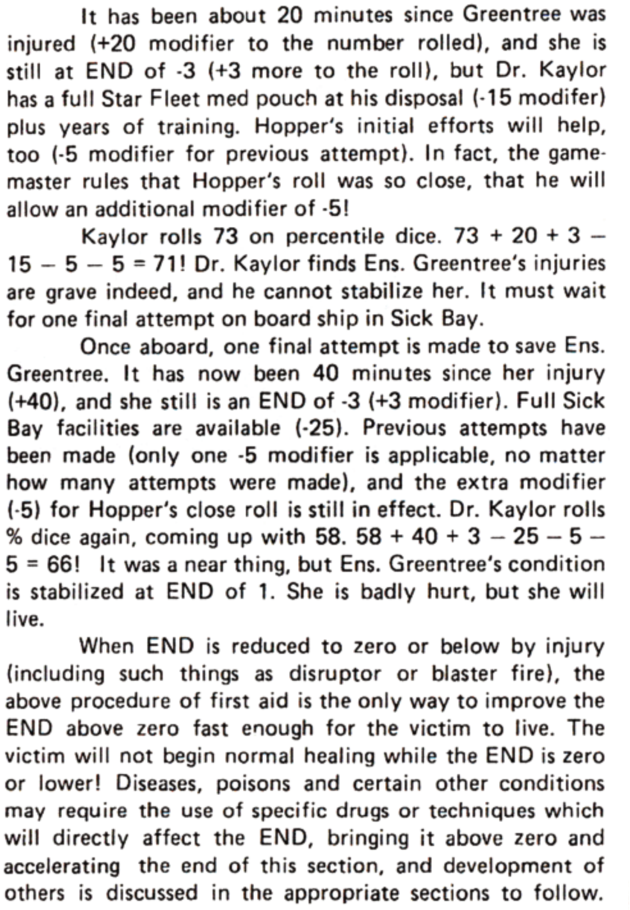
The landing party, led by security chief Lt. James Hopper, cannot request immediate beamup, as local sunspot activity is making transporter lock-on impossible. Lt. Hopper calls for a medical team to be sent via shuttlecraft, but it will take 20 minutes for them to arrive. Meanwhile, Hopper, who has some medical training, decides to try and help Ens. Greentree.

Lt. Hopper is a trained paramedic, having a Medicine (human) skill level of 12. Unfortunately, he has no medical equipment to speak of. Hopper's player is pretty clever, however, and tells the gamemaster he will try and improvise splints and bandages out of his uniform shirt and fallen branches. This doesn't qualify as medical equipment but the gamemaster allows him a -3 modifier for such aid. (The gamemaster has considered the type of injuries; broken bones, concussion, etc.; when making his decision. For other types of damage, such measures might have been useless and no modifiers allowed for them.)

Besides the -3, there will be a +3 modifier for the 3 points damage Greentree took beyond her END score. (That is, her END was effectively reduced 3 points below zero level). In other words, the two modifiers cancel out, leaving Hopper trying to roll 12 or under to save Greentree with his improvised methods. There is no modifier for time, as Hopper started his efforts immediately, stopping only a turn or so to call the ship.

Hopper rolls a 15. Very close, but not low enough! The saving roll is unsuccessful and Greentree is still dying. There is nothing else to do but wait for the shuttlecraft, since no one else in the landing party has medical training.

When the shuttle arrives, Dr. Gerald Kaylor and his team decide to put Ens. Greentree aboard and return to the ship immediately to save time. During the 20 minute return trip, he uses a full medical pouch, and his Medicine (human) skill level of 69, in an attempt to stabilize Greentree's condition.



It has been about 20 minutes since Greentree was injured (+20 modifier to the number rolled), and she is still at END of -3 (+3 more to the roll), but Dr. Kaylor has a full Star Fleet med pouch at his disposal (-15 modifer) plus years of training. Hopper's initial efforts will help, too (-5 modifier for previous attempt). In fact, the gamemaster rules that Hopper's roll was so close, that he will allow an additional modifier of -5!

Kaylor rolls 73 on percentile dice. 73 + 20 + 3 – 15 – 5 – 5 = 71! Dr. Kaylor finds Ens. Greentree's injuries are grave indeed, and he cannot stabilize her. It must wait for one final attempt on board ship in Sick Bay.

Once aboard, one final attempt is made to save Ens. Greentree. It has now been 40 minutes since her injury (+40), and she still is an END of -3 (+3 modifier). Full Sick Bay facilities are available (-25). Previous attempts have been made (only one -5 modifier is applicable, no matter how many attempts were made), and the extra modifier (-5) for Hopper's close roll is still in effect. Dr. Kaylor rolls % dice again, coming up with 58. 58 + 40 + 3 – 25 – 5 – 5 = 66! It was a near thing, but Ens. Greentree's condition is stabilized at END of 1. She is badly hurt, but she will live.

When END is reduced to zero or below by injury (including such things as disruptor or blaster fire), the above procedure of first aid is the only way to improve the END above zero fast enough for the victim to live. The victim will not begin normal healing while the END is zero or lower! Diseases, poisons and certain other conditions may require the use of specific drugs or techniques which will directly affect the END, bringing it above zero and accelerating the end of this section, and development of others is discussed in the appropriate sections to follow.

The Latimer Ruling

As said, time is of the essence. However, the notion that any form of 1st Aid rendered would bring any negative END value to 01 is extreme.

Let's look to the Galileo 7.

Lt.'s Latimer and Gaetano are sent to scout the area. It's foggy with rocky crags, while the sounds of hostile locals seem ever-around the next bend. Latimer climbs a promontory to survey the area and immediately takes a spear to the spine. That's gotta stir your coffee. Yikes!

A normal spear does 4d10+5 damage. As this is a giant, space-monster spear, let's double that and round to 10d10 for poor Latimer. At least it will be quick for him.

Latimer takes 50pts from the spear, fails a (DEX or LUC) check and falls off the cliff face, taking another 50pts in damage.

Gaetano rushes to Latimer's fallen body within one Turn and fires his phaser at the encroaching locals. Though hit by phaser STUN, the locals still stand, but are now fleeing in terror.

Let's diverge from the TV script and role play the rest.

Having chased the locals away, Gaetano now turns to Latimer who is face down with spear sticking from his back. Gaetano once took a CPR course, but that is about all of his training.

Gaetano flips his communicator open and calls McCoy and Spock to assist, stating the situation in as few Action Points as possible.

Latimer is a helmsman with, we'll say, END 60. The 100pts of damage from the spear and fall, and another +1 for the one minute that has elapsed since falling, that equates to END -41 and is a +41 die modifier now against McCoy.

If no aid is rendered, Latimer will lose END 01 per minute until aid, or death arrives, whichever gets there first.

Not knowing any better, Gaetano removes the spear and the blood starts to gush. Gaetano rips his sleeve off and stuffs the wound, possibly wedging the cloth with a loose rock at hand.

Gaetano has enough common sense to check for pulse or heart beat and breathing. With the bleeding staunched, Gaetano can apply CPR as best he can given the circumstance.

By administering this help, I posit that Gaetano has now stablized Latimer at END -41, not END 01 per 1st edition rulings. Rather, Gaetano has stalled the clock and kept that +41 going for McCoy's arrival and expert care.

If Gaetano rendered no help and it took McCoy 10 minutes to arrive, Latimer would be END -51 and a +51 die mod.

Once started, if Gaetano were to stop aid for any reason for more than one minute, all END and time benefit is lost up to that point and a new clock is started at the new END rating.

Gaetano can take a momentary break every minute or so as he renders aid, but there must be continuous aid rendered in whatever the circumstances are. Anyone can take over care, but care must be continuous to be effective.

Fatigue rolls are also in effect. One roll at full END at the 1st minute, one roll at 3/4 END at 2 mins, again at 1/2 END at 3 mins. Recovery is swift and there are no other standard penalties typically involved with Fatigue.

Fatigue in this case means needing to rest one minute per minute worked. Saving a life requires feverish efforts with added stresses and strains, unlike other common experiences.

This Fatigue can be 'shaken off' under life-threatening circumstances, but is otherwise overwhelming.

A successful Perseverance roll will shake-off the immediate effects and allow one person to administer continuous treatment for many minutes.

If this is the case, the person will need 2x the time spent administering aid to recover with full REST per normal fatigue rules.

McCoy arrives on the scene with a Med Pouch, a skill of 80 (iirc) and 1st Aid already administered for a 100 base success roll. With the +41 on the dice, that's near 60/40 in Bones favor.

If McCoy's roll succeeds, Latimer is stabilized at END -41 for one minute per the attending Doctor's or Medic's skill points. An 80 skill is 80 minutes. The field kit adds +15 minutes to that for an hour and a half total. "I've got him stablized, but we need to get to sickbay fast! There's nothing more I can do for him here."

If McCoy's roll fails, he can attempt to revive Latimer. Every revivification attempt takes about 5 minutes and adds cumulative +10 to the dice and 10pts END damage. Latimer is otherwise still stablized at END -41 for ~90 minutes at this point. After one revival attempt he would be -51, then at -61 and so on for the balance of the initial time remaining, only stablizing after the last successful attempt with whatever time is left on the original clock.

With any END rating below 0, you are not simply unconscious, but fully comatose. The negative END rating could be time it takes to come out of the coma naturally. So though healed before this, Latimer might stay in a coma for an additional 41 days if there isn't a therapuetic way to bring him out of it sooner. Latimer would also need 1/2 that time again in physical therapy for lost muscle mass, coordination, etc.

If once stabilized, the wounded person is not brought to a sickbay in time for further treatment, no matter what the attending medic can do, the wounded will then lose 2pts END per minute until hospitalized with modern equipment.

Death occurs once all modifiers outweigh the skills and equipment involved.

To repair that spear damage, a surgeon has their work cut out for them. Before Latimer's natural healing can restart, he must be at 1/10 END+01. The surgeon must repair 41 points for the spear and 6+1 for that healing to begin.

With a successful skill roll, Dr. McCoy repairs 1d10+5 END/hr in surgery and +5 per attending surgeon, up to two for 1d10+15/hr. Nurses and orderlies are par for the course, lacking them is -5 each, to the point that surgery cannot occur.

Latimer must make a LUC roll every hour with his current END as a die mod against; END -41 is a LUC roll at +41, but easier as surgery proceeds until 1/10 END+01 is achieved. Latimer then makes a final LUC at -07. Only now is he stabilized and out of danger, though still comatose for a time as defined by the GM. Any failed LUC rolls equal complications for the GM's in-situ interpretion.

ACUTE

An acute disease has a rapid onset (as short as several hours or as long as three days), a short course, and severe symptoms that start out mild, but gradually worsen as the disease progresses. A contemporary Earth example of of an acute disease is influenza, while an example of a chronic disease is cancer.

Many adventure situations can be built around diseases. The players may be required to deliver a serum of some kind to a planet suffering an epidemic, or a character might be stricken with a rare or unknown disease leading the players to search for a cure. The gamemaster must use imagination (as well as common sense) to create the conditions, symptoms, cures, methods of transmission, immunities, etc. related to a disease.

It is impossible here to give players and gamemasters a crash course in immunology, but a couple of examples will help gamemasters to learn to develop interesting (the players will use other words for it, certainly) diseases for their own campaigns. In addition, several diseases established in STAR TREK will be discussed in the medical glossary at the end of this section.

For an example of how a gamemaster might create a dangerous acute disease, we will work with the Symbalene blood burn. Symbalene blood burn is mentioned briefly in the STAR TREK episode *The Changeling*, but we learn nothing about it except the name, and that it is considered to be a fast-acting, highly infectious disease. In this example, we will create a set of data for this disease so it can be used in a campaign.

Symbalene blood burn is a viral disease native to the planet Symbalus IV. It is transmitted by touch and has a very short incubation period (7 to 10 hours) before symptoms begin to appear.

The symptoms include a sharp rise in body temperature, severe internal pain (an abdominal burning sensation), destruction of red blood corpuscles and extreme reddening of the skin followed by bleeding from the pores. The disease is 97% fatal within two days.

Humans and other species with iron-based blood are affected. (Vulcans, Edoans and Andorians are immune—their blood chemistry is different). A person who contracts the disease and survives thereafter has total immunity.

The only real cure is an injection of antibodies. Antibodies for the blood burn can be produced artifically by large commercial medical laboratories, but the material is perishable. A certain amount can also be produced from the donated fresh blood of a survivor of the disease (about 1 injection per 2 pints of blood). Massive blood transfusions, periodic injections of tri-ox compound, and lowering body temperature will slow the progress of the disease.

In game terms, the disease has the following effects. Each time a susceptible character touches a diseased individual (or a recently dead victim of the disease), he/she is exposed and must roll an END save on % dice. Because blood burn is so virulant, a die modifier of +30 is added to the roll before comparing to the END attribute. This addition (but not the END save itself) is avoided if the character can make a LUC save first. If the END save fails, the disease is transmitted to the character. The rolls to catch the disease should be made by the gamemaster secretly! Thus, if the player is exposed, he will not know whether or not he has caught the disease until the symptoms start to appear.

The incubation period is 7 hours minus the character's END in minutes. Near the end of this time, the character will begin to feel a bit hot and feverish. When the incubation period is over, the disease strikes full force. A high fever results, and the character takes 4D10 points of END damage from it unless steps are taken to keep the body temperature down. (Using fever reduction drugs or drastic measures such as packing in ice will hold this damage to 2D10.)

At the end of the first 24 hours after incubation, the character takes another 6D10 points of damage from bleeding (from the pores) and oxygen starvation (as the lungs begin to shut down). This damage can be reduced to 3D10 by administering blood transfusions and tri-ox compound. At the end of the second 24 hours, another 6D10 points of damage are taken as before, with the listed remedies having the same damage-reducing effects. Should the character survive this long, no further damage is taken and normal healing begins—the disease has run its course.

If an antibody injection is available, administration of one at any time after symptoms develop will prevent all further damage and normal healing begins. A vaccine is available to protect against Symbalene blood burn, but a booster must be taken every year. Since the disease is so rare, it is unlikely (3 chances in 10—roll a 10-sided die) that the average crewman will be up on his vaccinations unless he expects to be exposed.

Most larger Star Fleet ships should have supplies of the vaccine. Vaccination is useless once the disease is already contracted; then antibody shots are necessary. A well-equipped medical lab (as is found aboard such ships as the U.S.S. Enterprise) could process and prepare antibody injections, if blood donors can be found who have had and survived the disease. (Even on a large ship, however, there are not likely to be more than two or three such people!) Larger supplies would have to be transported from a starbase or some planet with advanced medical technology and industrial drug-making capacity. By then, it would likely be too late, if such a place is not nearby.

CHRONIC

A chronic disease would work much more slowly, and be more difficult to cure. Let's create a totally fictitious disease, Jordan's Syndrome, as an example.

Jordan's Syndrome (named after the discoverer, the reknowned medical researcher Dr. David Jordan) is a wasting disease caused by the breakdown of a natural hormone in the human body. No other races are known to be susceptible, but it is suspected that certain hybrid-race individuals might prove susceptible as well. The first symptoms are increasingly frequent spells of dizziness, followed by a gradual loss of strength and coordination which eventually causes death. There is no known cure, but a periodic injection of the hormone in question can delay the final stages nearly indefinitely.

In game terms, this disease is very simple to implement. As Jordan's Syndrome is extremely rare, it would be up to the gamemaster to inflict it upon a character as he sees fit. It is not something that can be caught from a victim. This is a disease or condition more like diabetes, and may be genetically linked in some manner.

When the symptoms begin, a dizzy spell will occur lasting a number of turns equal to 2D10 (rolled by the gamemaster secretly). During this time, the character must roll a saving roll on ½ their normal DEX to even perform simple actions correctly! All other saving rolls on skill levels are halved (either randomly or on a pre-set schedule), but such attacks will start infrequently and become more frequent and last longer as time goes by.

After 2D10+5 weeks of game time, the character rolls 1D10, divides by 2 and rounds down, and subtracts this number from the character's STR. Do the same to DEX and END. The dizziness attacks also continue at intervals. If the character's END is allowed to drop below the unconsciousness threshold, the character goes into a coma. Without treatment, the disease will continue to progress until the character dies.

Once the disease is diagnosed, regular shots of the hormone (1 per week) will stop further deterioration of STR, DEX and END and end the dizzy spells. The damage will not regenerate even with the shots, so the sooner the disease is diagnosed and the shots begun, the better!

Any person with a minimum skill level of 20 in the appropriate Medicine skill can automatically recognize a common disease after a thorough examination. Less common diseases require a saving roll on the Medicine skill level. The availability of a medical laboratory and medical library betters the chances of diagnosis by 20 points. The gamemaster makes the diagnosis save secretly. If the roll is fairly close, the gamemaster may give partial information. If the roll was not particularly close, no information is given. If the roll was way off, however, the gamemaster may decide to give wrong information which might cause incorrect treatment to be administered. Incorrect treatment has no effect, or may actually hurt the patient!

Note that first aid is of no real help against diseases. If specific treatment against the disease is not administered, the disease will take it's toll. Please remember that the vast majority of diseases are not fatal. A character may just take some damage before the disease runs its course. Such damage heals just like wound damage once the disease has run its course. Chronic diseases linger, but acute diseases are over in a few days or weeks at most.

If a disease is unknown, it will not be found in the medical records. A medical officer must then go to the laboratory and try to determine causes and cures. A character must have an appropriate Medicine skill of 30 or better to do medical research on an unknown disease.

A saving roll can be attempted for every four hours of research. The research save is made at 1/4 the character's normal Medicine skill, making this a difficult roll indeed! In addition, a further die modifier of 1 point is added for every previous attempt that has failed. Thus, the roll gets harder and harder. Eventually the modifiers may accumulate until the character requires a roll of less than 1 to succeed. At this point, the research has run into a blind alley. No further attempts may be made by that researcher until such time that some new evidence or information becomes available. The gamemaster may wish to supply such information as part of the campaign action at this time . Then the procedure begins over again from scratch.

If a roll is successful, the cause of the disease is discovered. Further research may have to be done to find a cure, however. Half the time (roll randomly or flip a coin) the cause directly implies the cure, and the cure is found immediately. Otherwise, continue the research procedure until a second save is made.

The gamemaster should decide ahead of time on a cure or effective treatment for his "unknown" disease. It is possible to have a disease that absolutely has no accessible cure, but it is usually a bad idea to inflict such a disease in a role-playing game situation, especially on player characters. How difficult the cure or treatment is to secure and administer is up to the gamemaster.

POISONS

Poisons are another health hazard that may be encountered while exploring the planet of the final frontier, and characters and medical personnel must be prepared to deal with them. Unlike disease damage, poison damage can usually be treated with first aid methods to some extent (induction of vomiting for some oral poisons, dilution of others, drawing out poison from bites by mouth or suction device, etc.). It is better to treat poisonings with specific methods where possible, however.

In this game, there are three basic types of poisons. Simple poisons are fast acting and leave little (if any) residual effect. They do from 1D10 to 5D10 of damage with such damage subtracted from END only once. Complex poisons are also fast acting, but their effects tend to last longer. A complex poison should do less damage at one shot than a simple poison (1D10 minus 5 to 2D10). This is subtracted from END as well, but is subtracted 1D10 times at intervals of 1D10 minutes between attacks until the poison is neutralized or all attacks are finished.

A specific poison affects one or more attributes other than END, leaving the rest alone. They may be of either simple (doing damage once) or complex (doing damage several times in multiple attacks) type. Specific poisons may affect a character's STR, DEX, INT or any combination of these. If a character's STR or DEX is reduced to zero in this manner, that character may perform no useful action at all (even standing up). If INT is reduced to zero, no action may be undertaken, nor can the character communicate in more than a few slurred mumbles. A poison that reduces INT may or may not have permanent effect, according to the gamemaster's intent. STR and DEX reducing poisons never have permanent effect. These attributes return to normal at ½ the character's usual wound damage END healing rate.

Antitoxins and antidotes may halt and/or cure damage done to a character by poisons. Some antitoxins and antidotes work against poisons introduced into her/his game. In some cases, a specific antidote may only work part of the time (a percentage chance, determined by the gamemaster and rolled on % dice).

An antidote for a simple poison will restore all or part of the damage done by that poison. This would be the same for either ordinary or specific poisons. Antidotes for complex poisons usually halt any further damage, and may also restore part of the damage already done. Assuming a character survives, damage done to END will heal normally, as for wounds.

Poisons can be encountered in various ways. They may be ingested with food or drink (or as food or drink, if a character nibbles the wrong kind of leaf on an unknown world.) They may be breathed in (like poison gas or spores), or taken taken in by touch (like poison ivy irritant) or injection (such as the bite of a poisonous animal). It is up to gamemaster to determine how successful first aid will be on a poisoned person, depending on the type of first aid administered by personnel on the scene. A character reduced to END of zero or less by poison may yet be saved either by quick administration of an appropriate poison antidote or by application of relevant first aid, as for wounds.

Antitoxins: To determine if an antitoxin is effective, have the medical officer roll percentile dice. If the first roll is 50 or less, the antitoxin will cure 4D10 damage points; otherwise roll again. If the second roll is 50 or less, the antitoxin will cure 2D10 damage points; otherwise roll again. If the third roll is 50 or less, the antitoxin will cure 1D10 points. If none of the three is 50 or less, the antitoxins are totally ineffective. The 50% chance may be adjusted depending on the circumstances.

SPECIALTY DRUGS

Antitoxins

These drugs counteract the harmful effects of poisons. There are antitoxins for plant and animal poisons as well as against the poisonous toxins given off by some types of viral infections and diseases.

Stimulants

These drugs allow an exhausted person to function without rest, functioning normally for a time. They may temporarily revive an unconscious person. There are three types: light, medium, and heavy. Even normal doses take their toll, and overdoses may do severe body damage. Stimulants may produce unusual side effects.

Sedatives

These drugs produce relaxation and calming, even unconsciousness. There are three general types: light, medium, and heavy. An overdose can produce death.

CORADRENALINE: Somewhat effective against exposure and frostbite. Will neutralize 2D10 points of damage from cold-based sources, and cuts further damage suffered by ½ for the next 3 hours.

CORDRAZINE: A heavy stimulant (see GENERIC DRUGS section for effects). An overdose (3 x normal or more) will cause severe mental imbalance and a feeling of acute paranoia. The effects last for anywhere from a few hours to a week, at gamemaster's option, depending on the size of the dosage and the END of the character.

DYLOVENE: A poison antitoxin sometimes (50% chance) effective against simple or complex plant poisons (not specific poisons). Check for effectiveness against any new plant-derived poisons encountered. If the roll is successful, Dylovene will cure 2D10 points of damage.

FORMAZINE: A light stimulant (see GENERIC DRUGS for effects) which can cause irritability (not dangerous to the patient, in itself) if administered in larger doses (2 x normal dosage or more).

HYRONALINE: For treating radiation sickness. Halts damage from radiation sickness (a form of poisoning, actually) and neutralizes 3D10 points of radiation END loss per day of use.

MASIFORM-D: Antidote against most muscle-relaxant type poisons (specific poisons affecting DEX and STR). Muscle relaxant poisons like curare work on the involuntary muscles such as the heart. Masiform-D will neutralize 5D10 points of END loss from such poisons, but has the side effect of causing nausea.

MELANEX: A light sedative (see GENERIC DRUGS) that has the side effect of causing a vivid yellowing of the skin while the victim is under its effects.

NEURAL PARALYZER: A type of drug used to simulate death. 1D10+5 minutes after injection, the character goes into a death-like coma that cannot be distinguished from death without sophisticated instruments such as a medical tricorder or diagnostic bed. The coma will continue until any stimulant is administered, whereupon the character returns to normal. The drug is somewhat dangerous, as if the stimulant is not administered within a number of minutes equal to the character's normal END, death will result.

RYETALYN: An antidote for Rigellian Fever. It must be absolutely pure to be effective. Halts all damage from this disease and begins normal healing process.

STERILITE: Used to prevent infection during surgery or wound treatment. A powerful antibiotic, but safe for use by almost any humanoid species. Especially useful for surgery in the field when conditions are less than ideal.

TRI-OX COMPOUND: A very useful substance for treating any sort of oxygen starvation, including landing party operations on planets with thin atmospheres or low oxygen content. (See planetary generation data.) On such worlds, an injection of Tri-Ox every three hours to avoid loss of END due to fatigue caused by lack of sufficient oxygen. Also useful during first aid treatment of decompression victims, and against any anaerobic disease organism or any disease inhibiting breathing. Tri-Ox is actually an organic fluorocarbon containing extremely high levels of oxygen in solution. It releases its oxygen for use in the bloodstream almost instantly.

GENERIC DRUGS

There are two important types of generic drugs (that is, drugs where we are not specifying particular names) that have a great effect on the game—stimulants and sedatives. Often in episodes of STAR TREK, Dr. McCoy would need to administer a stimulant to a wounded, perhaps unconscious man because his advice or presence on the bridge was vital to the survival of the ship. Just as often, a sedative had to be applied (sometimes by surprise from a concealed hypo) to a guard to keep him quiet for a time.

The use of stimulants and sedatives must be carefully controlled by the gamemaster (much as real drugs must be controlled) to avoid unbalancing the game. They can be highly useful as a plot device or last-minute aid, but their use should be severely restricted.

Stimulants (in game terms) provide a temporary boost in END. Such a boost may revive an unconscious man (temporarily) or allow an exhausted character to continue to function without rest, but they take their toll in the long run.

There are three types of stimulants, classified by strength. A LIGHT STIMULANT adds 1D10 to END for a number of minutes equal to the character's original END score. A MEDIUM STIMULANT adds 2D10 and lasts twice as long. A HEAVY STIMULANT adds 3D10 and lasts three times as long.

If giving a stimulant to an unconscious person brings END above the unconsciousness threshold, consciousness is regained for as long as the stimulant's effects last. The

END score then returns to the original depressed state. This means that even a light stimulant will awaken a person who passed out before reaching the unconsciousness threshold. Unlike the more badly injured character, such a person will stay conscious unless END is dropped below the threshold by further injury.

When stimulants wear off, however, an END saving throw must be attempted. (A basic save on original END for a light stimulant, a more difficult roll with a +10 modifier for a medium stimulant, and a big +25 modified save for a heavy stimulant.) If the roll succeeds, there is no effect on the system (other than loss of the temporarily gained END boost) when the drug wears off.

If the roll fails, however, the shock to the system caused by the stimulant does a certain amount of damage (treated like wound damage or disease damage) to the character. (1D10 minus 5 for a light stimulant, 1D10 minus 3 for a medium and 1D10 for a heavy stimulant. Final result of zero or less means no damage was taken after all.)

Thus stimulants are used only when absolutely necessary, and are carefully controlled by the wise gamemaster and the prudent medical officer.

Sedatives are also divided into light, medium and heavy types. They produce a temporary reduction in END which is treated much like fatigue. A LIGHT SEDATIVE reduces END by 2D10+10 for 2 hours. A MEDIUM SEDATIVE reduces END by 2D10+25 for 4 hours. A HEAVY SEDATIVE drops the END score by 2D10+40 for 6 hours.

If a sedative drops END below the halfway point, the character must make a normal saving roll to avoid unconsciousness. If the score drops below the unconsciousness threshold, loss of consciousness is automatic. When the sedative wears off, the END returns to its previous level (counting in any normal healing while unconscious).

There is a danger in using a sedative, however. If a sedative's effect would drop a character's END below zero, keep track of how many points below the END would go. Make an immediate saving roll on the character's full normal END minus the number of points below zero caused by the sedative effect. If the save fails, the character has been overdosed. The END level then actually does drop (as with wounds and disease) to the level below zero that was recorded. The character is in mortal danger and will die without medical attention and successful emergency first aid. (See EMERGENCY FIRST AID in the med section).

The use of stimulants and sedatives is very tricky business. Only someone with a Medicine skill of 40+ (the equivalent of an MD degree) is allowed to administer them. Gamemasters are encouraged to keep a close eye on their use and find ways to discourage players if they misuse them to unbalance the game.

There is one other minor type of generic drugs classification that deserves mention. Since about 1/3 of the civilian population is adversely affected by zero-gravity, all Star Fleet sick bays have supplies of drugs to combat zero-G sickness. This malady is unlikely to afflict an Academy graduate or other experienced spacehand, nor is the situation likely to arise on board ships with artificial gravity. Nonetheless, if a civilian is exposed to zero-G for the first time, roll % dice. A score of 35 or less means the character is immediately stricken with zero-G sickness. STR, DEX and INT are effectively halved until gravity is restored or zero-G sickness drugs are administered. A dose of the drug eliminates the bad effects of zero-G for about 4 hours.

Warning About Sedatives And Stimulants

The use of stimulants and sedatives must be carefully controlled by the gamemaster (much as the real drugs must be controlled) to avoid unbalancing the game. They can be highly useful as a plot device or last-minute aid, but their use should be severely restricted.

Their use is tricky and only a doctor or someone with a Skill Rating of at least 40 in *General Medicine* should be allowed to administer them. Gamemasters are encouraged to keep a close eye on their use and find ways to discourage players if they misuse them to unbalance the game.

Stimulants and sedatives can be given unusual or annoying side effects. A light stimulant such as Formazine can cause irritability. A heavy stimulant like Cordrazine can cause severe mental imbalance and a feeling of acute paranoia, the effects lasting for anywhere from a few hours to a week, at gamemaster's option, depending on the size of the dosage and the END score of the character. A light sedative like Melanex can cause a vivid yellowing of the skin while the victim is under its influence.

STAR FLEET MEDICAL EQUIPMENT

There are two types of field medical sets used by Star Fleet personnel. These sets and the items they contain are listed below:

Field Kit

Contains spray dressing, Feinberger, and hypo with small drug supply, including 6 doses each of light and medium sedatives, light and medium stimulants, Coradrenaline, Dylovene, Sterilite and Tri-ox compound. These items are carried in a small pouch with a fold-over top carried on the belt in the back under the uniform shirt.

Med Pouch

Contains all of the above, plus a larger spray dressing, protoplasers types 1 and 2, laser scalpels and other field surgery equipment, and a larger drug supply including six doses each of generic heavy sedatives and stimulants, Hyronaline, Masiform-D, and a neural paralyzer. Also included are six extra doses of light sedatives and stimulants, Tri-ox compound and Sterilite. All of this is contained in a larger roll-up pouch with pockets, which can be carried in a shoulder sling.

Other items can be carried by a medical officer on landing party duty if he deems them necessary, with the approval of the Chief Medical Officer. Unless otherwise stated before leaving the ship, however, no items but those listed above are contained in the kits.

The field kit is always carried by medical officers on duty, even sometimes aboard ship, according to the wishes of the Chief Medical Officer. The larger med pouch is issued when medical help of an unspecified nature is expected to be necessary, or when the landing party is expected to have to make camp. Medical officers also carry medical tricorders when with a landing party on exploratory duty, or when expected to have to make field diagnosis. Medical officers usually do not carry sidearms of any type, but this is really up to the Chief Medical Officer and the Captain to decide on a case-by-case basis.

MEDICAL GLOSSARY

The following glossary lists the names and descriptions of equipment and many drugs used by Star Fleet medical personnel. Each entry also specifies the effects such equipment has within the game.

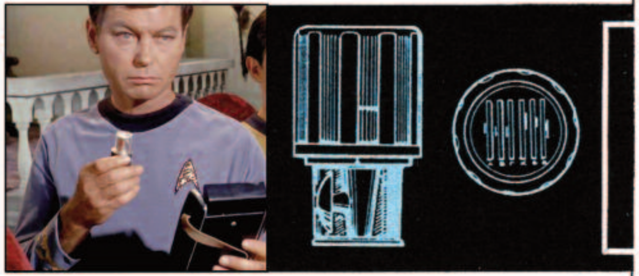
BIOCOMPUTER: A portable unit about the size of a common portable television set. The biocomputer may be used to analyze samples of tissues and other substances and to process biological data. It can be tied into the ship's computer through a link with any communicator. To use the biocomputer, a character must have a Medicine skill level of 20 or more.

CARDIOSTIMULATOR: A future version of today's defibrillator, used to restart a stopped heart. The cardiostimulator is less of a shock and more dependable, however. A character reduced to END of zero or less through some kind of heart failure or shock (like electric shock) may require a successful application of this unit to be revived (gamemaster's option). A save vs. Medicine skill level is required to use this device successfully, and a minimum skill level of 20 is needed to know how it is used at all.

CRYOSURGICAL FRAME: This frame is placed over all or part of a patient's body to slow the patient's metabolism and body processes through use of cold. It is useful during surgery, but must be used under the supervision of someone with a Medicine skill of 40+.

DIAGNOSTIC TABLE AND PANEL: This is the diagnostic bed as seen in the U.S.S. Enterprise Sick Bay. It continuously scans the patient for blood pressure, pulse rate, respiration, brain activity and other essential information and shows these on sliding scales on the face of the panel above the bed. Anyone can read the scales, but only someone with Medicine skill of 10 or more will be able to tell very much from them.

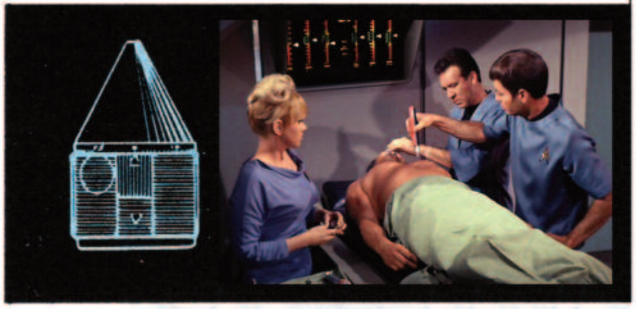
FEINBERGER, MEDICAL: Sort of a portable version of the diagnostic bed, in a palm-size unit. With a five-second scan, it gives a reading on heart rate, blood pressure, respiration, and body temperature of the patient. Anyone with a Medicine skill of 10 or more can use one.



HEARTBEAT READER: A more sophisticated and specialized device than the Feinberger, this microphone-shaped instrument gives a digital readout of a patient's heartrate after a five second scan. It also contains a transmitter capable of tying in with the ship's medical computer (on board ship only) for correlation of data. This feature was used to "mask" the heartbeats of bridge personnel and reveal the presence of Lt. Cmdr. Finney aboard the U.S.S. Enterprise in the episode *Court-martial*. Medicine skill of 20+ is required for use.

HYPO: Short term for a hypodermic syringe. The STAR TREK version is actually a high-pressure pneumatic device that injects substances through the skin painlessly, without a needle. Almost all drugs can be injected in this way. Common drugs given in smaller doses are contained in micro-injector vials of several doses. Other less common drugs are attached in larger transparent or translucent vials before injection. Anyone with Medicine skill of 10+ can fill one, and anyone who is shown briefly how to handle it can give an injection under normal circumstances.

LASER SCALPELS: There are six types available. Scalpels designated 000-1, 00-1 and 0-1 are all single beam lasers, with the beam adjustable to 1, 1.25 and 1.5 cm. focal lengths respectively. These cut in a solid line from scalpel tip to end of beam. Scalpels designated 000-2, 00-2 and 0-2 are triple beam versions of the above with the same focal lengths. These cut only at the focal point, and are often used for vaporizing small growths. Each type (000, 00 and 0) have increasingly larger beam diameters. Generally speaking, Medicine skill of 40+ is necessary to perform surgery.



PROTOPLASER: Heals wounds without stitches, sutures, etc. and comes in two types. The small type 1 'Plaser is used for connecting small blood vessels and nerves. The larger type 2 model is used for closing connective tissue, muscles and epidermal (skin) layers. These devices will heal ½ the END loss from any wound doing less than 10 points of damage with a five-minute application. (Anyone with a Medicine skill of over 10 can use one for this purpose.) For more involved healing and surgery they are also used, but such use is factored into the already listed medical rules. Anyone with Medicine skill of 20+ can use a protoplaser for normal wounds, but major blood vessels, nerve tissue and delicate work requires a 40+ skill level.

SPRAY DRESSING: Sprays a plastic/synthetic "skin" over a wound, which stops superficial bleeding and contains an antiseptic and anasthetic agent. When a wound heals, the dressing is absorbed. Anyone with a Medicine skill of 10+ may apply such dressings.

TRICORDER, MEDICAL: The use of the medical tricorder is discussed at length under Tricorder in the equipment section. Basically, it provides life sciences scanning functions and basic life signs monitoring in the field. It also has some limited use as a lie detector.

A TREATISE ON STAR FLEET REGULATIONS RESTRICTING THE USE OF ALCOHOLIC BEVERAGES (AND HOW TO CIRCUMVENT THEM)

by Joe Clifford Faust

Winston Churchill was once asked what held the British Navy together during the 19th century. His reply named three seperate elements, one of which was rum. During the era of sail, the daily regimen of alcohol was an important part of the crew's morale. A captain could cut food, water, and sleep, but heaven help the man who interfered with the crew's ration of rum.

By the time of the Federation, alcohol on board starfleet vessels has been all but outlawed, with the exception of that allowed for medicinal purposes (and that used off-duty by higher-ranking personnel). This does not mean, however, that alcohol has no effect on shipboard morale. The presence of alcohol on Federation starships is probably one of the most overlooked infractions of regulations there is. This is not to say that Starfleet Command tolerates it. When drunkenness has played a part in a major disaster, the head of the tolerating ship's commander has rolled right along with that of the offending crewman.

The tolerance of alcohol among the command level is due to the controversial theory of Allowable Insubordination. This theory holds that if a minor infraction is allowed among crew personnel, it acts as a safety valve and inspires better performance in times of crisis. There is even a case on record where the deplorable act of mutiny was curbed when certain crew members pointed out that an offending commander once overlooked a large cache of Lithian Ale during a surprise inspection (*USS Grange*, NCC - 1266, UFP Case #661-409/J).

This brings up the question of how the goods are obtained to begin with. In most cases, they are smuggled aboard by crew members coming from shoreleave or Starbase duty. This is risky, not because of checks for contraband (many security officers will look the other way when offered a couple of belts), but because it is believed that the act of transporting is said to "take something out" of whatever liquor is materialized. This is hearsay for the most part, but has its roots in the fact that a rare liqueur called Xeophod coagulates into a consistency similar to library paste during transporting.

For the most part, the ship's alcohol is provided, by the most resourceful crewmen through the time-honored tradition of the still. These men (and women) are usually engineers, as they are the ones with access to the equipment that makes the miracle happen. For some reason, engineers are also the most adept at throwing smokescreens around what is actually going on. While running a still presents certain logistical problems, technological advances of the day have produced high-tech solutions that have made the Starship Still as common (and important) a piece of equipment as the food synthesizers.

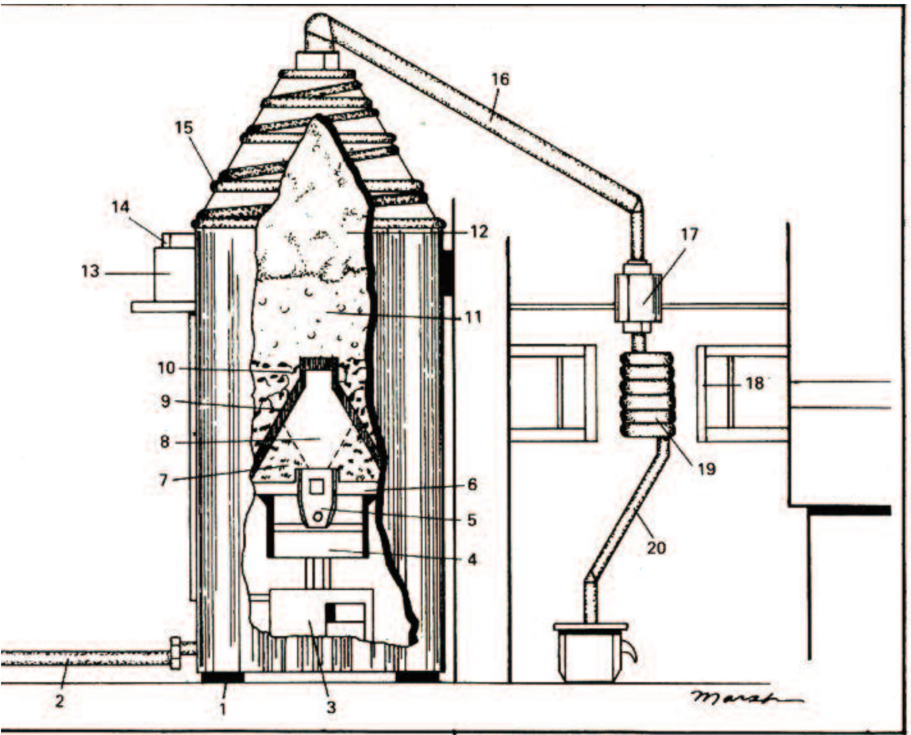
The diagram shows a common still and how it uses Federation-age technology to combat the problems of concealment, smoke, and aging. For concealment, the still is usually hidden in an unused section of the engine housing. (There is another reason for this that we will see later.) Since available space is at an absolute minimum, the frame of the still is usually held to the sides of the housing by magnetic grips (1). Because the use of burning wood chips is impractical and dangerous, another means of heat generation was devised: an extra power line is run from the main power bus. A power loss of .0000347% is realized but is virtually undetectable because most monitors fail to show anything below .0001%. This power line (2) feeds a power converter (3), which, in turn, feeds a Freon pumping unit (13) and a Phaser I charger (4). The charger is bolted into the housing and powers a Phaser I (5) which constantly fires at a low-heat setting. The shielding (6) protects the phaser and charger, and insulation (7) insures even spread of heat. There is usually an access plate so the phaser can be replaced occasionally (as it runs continually).

Another shield of evenly-heating metal (9) is molded into a funnel shape to maximize the heat generated by the phaser (8), and produces a percolating effect between the mash (10) and the liquid (11). A note here on the mash: this may be any of the commonly used high-starch food products, such as rice, corn, potatoes, etc. While synthetics commonly produced on starships are usually used, most crew members will jump at the chance to buy quantities of the real thing when opportunity arises. Natural ingredients are said to produce a smoothness not found when synthetics are used.

As the mixture percolates, the steam rises into the condensation chamber (12). The funnel shape recycles most of the liquid back down, a process required for aging. To speed this along, a pumping unit (13) circulates freon gas supplied by replacible cartridge (14) through tubing (15) which cools the upper walls of the chamber. What steam escapes moves into a gravity feed tube (16) where it condenses into liquid and flows down another set of condensation tubes (19). These tubes are traditional copper - and rest between poles of one of the Magnetic Differential Controllers (18) of the engine. Flow of liquid is governed by a regulator valve (17). This is the point where the majority of the aging takes place. Studies have shown that because of the intensity of the magnetic flow between the poles of Warp Engine MDC's, time actually becomes altered and distorted in the space between, causing an aging effect. Use of copper here is a must for three reasons; it enhances the taste of the finished product, the conductive qualities of the metal insure that the magnetic flux does a proper aging of the product, and the conductive qualities of the metal insure that the magnetic flux does a proper aging of the product, and the conductivity of the metal insures that the differential in use is not out of sync with the others by allowing the current freedom of movement between the poles.

Once the liquid has cleared the differential, it passes through another feeder tube (20) and into a suitable container, where it is now ready for human (or otherwise) consumption. A still of this type is capable of producing a fifth of 125-to-210-year-old beverage every thirty hours.

All still operating crewmembers should bear in mind that while their commanding officers may overlook minor infractions involving alcohol (and may even be one of their patrons), it does not mean that they have carte blanche for outright alcohol abuse. If any member of the still crew notices or suspects problems of alcohol abuse in another crewmember, it is his duty to report it. There are severe penalties for habitual drunkeness and alcohol-related dereliction of



# Drinks	Class I *Beer/Wine*	Class II *50-100 Proof*	Class III *100+ Proof*
1	Free	Free	Check 1
2	Free	Check 1	Check 1 −15
3	Check 1	Check 1 −10	Check 1 −20
4	Check 1	Check 1 −15	Check 1 −25 Check 2
5	Check 1 −10	Check 1 −20	Check 1 −35 Check 2 −10
6	Check 1 −15 Check 2	Check 1 −25 Check 2	Check 1 −45 Check 2 −20
7	Check 1 −20 Check 2	Check 1 −30 Check 2 −10	Check 1 −50 Check 2 −30
8	Check 1 −25 Check 2 −10	Check 1 −45 Check 2 −20	Check 1 −50 Check 2 −40

These mods are listed for the Attribute, not the Dice. 'Minus' becomes 'Plus' when read as Dice Modifiers.

duty that the Federation enforces more frequently than one realizes. In the Klingon Empire, some first offenses require courtmartial, torture, or vaporization. The officer in charge of distributing still products should always be prudent and observant in carrying out his duties. It is his responsibility.

No paper on alcohol would be complete without providing background for the Gamemaster to concoct and conduct a drunken brawl (if he so desires). Not only that, but players should have some idea as to what's going to happen to their characters once they begin to partake of the fruits of their labors.

The easiest way to start a brawl is for participating members to lose control of their drinking. Note that, after a couple of drinks a character is drunk, no matter how cool he may appear. These checks are to determine how they are handling things. For NPC's, the GM should roll 1D6 to determined the amount consumed, while PC's must tell the GM each time they order a new drink (see "Knowing When To Quit", below).

The types of beverage being consumed is the most important factor here. They are divided into three categories, roughly by proof (proof halved gives you the percentage of alcohol in the beverage). The number of drinks is cross-indexed with the type to produce a check which may or may not bring penalties. For ease of play flow, this chart should be used with all races. If the character is mixing types of drinks, move him up one class. If the person is already Class III and is mixing alcohols, add one - drink to his checks.

KEY

FREE: This is a "free" drink, no checks must be made.

CHECK 1: Character must make a saving throw against END in order to maintain control. This is what is known as "holding one's liquor". If there is a negative modifier with the check, it must be applied to the END before the check is made. Once the character is out of control, the check need not be made again.

CHECK 2: Character must make a saving throw against STR in order to keep from passing out. Again, any negative modifiers must br applied to STR before checking. A character does not undergo this unless he has failed Check 1. Once the character has passed out, this check need not be made again because he is unconscious. He now must undergo the painful process of sobering up.

All checks are made in secret by the GM.

KNOWING WHEN TO QUIT: If (in all wisdom) a player wishes to check and see if he is out of control, he asks the GM to make a check for him. This is a Check 1 with appropriate modifiers against the character's INT. If the character passes and is out of control, he is told such. He still must undergo checks but will begin to sober up within the hour (if he stops drinking, that is). NOTE: Vulcans always know when to quit.

PENALTIES: Out of control characters must make a saving throw against DEX (with any modifiers) under their current Check 1 level when attempting to do anything that requires the least bit of coordination (including walking). They are also subject to the whims of the GM who may dictate what bizarre behavior they might indulge in (or let the character decide, if he's enjoying his situation). If a whim is protested, the player may attempt a saving roll against Check 1 INT to keep from doing so.

OTHER MODIFIERS: Naturally, someone experienced in the art of elbow bending will maintain control better than a novice. Add to said character's Check 1 the following:

+1 for every 5 skill points in *Carousing*

+1 for every 15 skill points in *Gambling*

+1 for every 25 skill points in *Streetwise*

If the character has *Alcohol Appreciation* as a hobby or special skill or

A personal note:

A few short weeks before my third Birthday, I got a mint-in-sealed-coffin dead father. He died drunk behind the wheel.

The only 'good' thing that can be said is that he didn't take anyone else out with him. He went wide around a long highway curve, hit the old-style median, launched, rolled and landed upside down into on-coming highway traffic around 11pm back on May 6, 1972.

The cop on the scene remarked to my Dad's buddy later that of all the accidents he'd seen, Dad was only the second where deceased wore a seatbelt. Seatbelts were still a new thing back then and laws regarding their mandatory usage some time away. I resisted when it went in effect. Why? Stupidity. Ignorance.

In those days, drunk driving was far more common and seat belts only mandated on all cars a few years previous. Another buddy had asked my Dad if he wanted a lift, but Dad refused. That decision destroyed our lives.

As a freshman in college, a classmate of mine was killed with a Senior the night before his graduation. A couple years later, some lower class buddies were drunk. The back seat passenger's face was cut up for the lack of a seat belt when his head went through the rear glass. Everyone else had severe bruises and some rib breaks. Whether you live or die, the effects live on in those around you.

While alcohol was always in vogue, the 1960's it seemed particularly so somehow. Consequently, it features heavily in the TV shows of the day, including Star Trek. From a source of comedy to drunken brawls, all were par for the course and storylines.

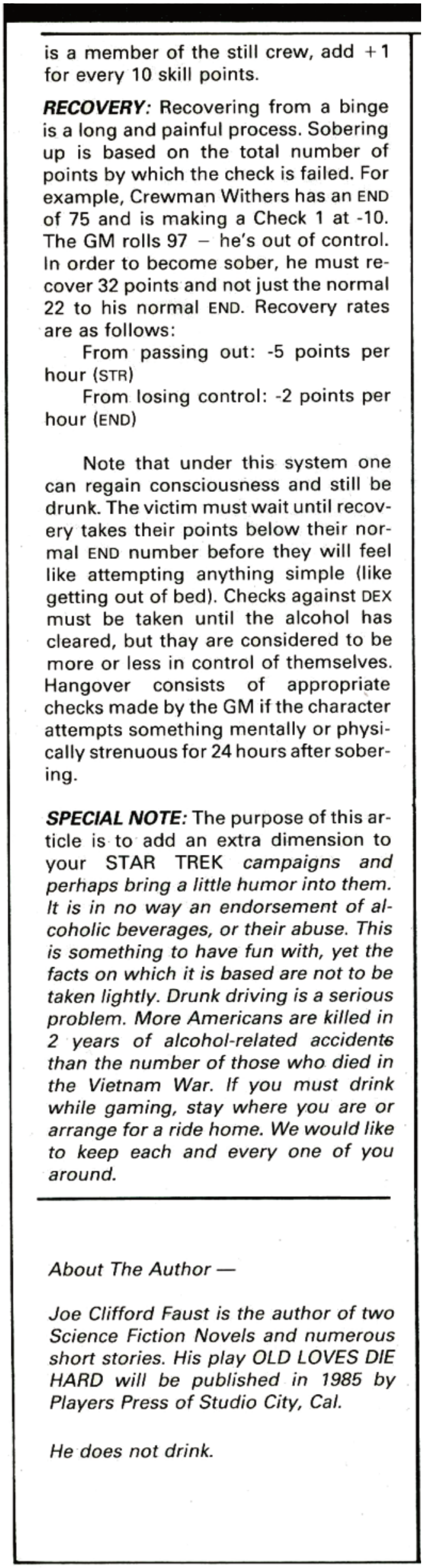
Does that kind of thing still go on today? I'm far removed from that culture, but a few nights ago, 3am, I found a neighbor-buddy passed-out drunk in his car. Took 10 minutes knocking on windows to wake him.

While the Responsible Drinking campaign hit in the ~1990's and has been seeping into the societal consciousness, drinking isn't on TV as much. Even Tony Stark is clean. Yet, clearly drunk driving remains in need of societal address.

While I went through my own brush with the brew in my youthful years, even then it seemed ever more pointless to me, making one slow, stupid, slurry and clumsy -and usually more upset, angry or violent than ever happy.

My hope is that by Star Trek's time, marijuana would be the more sensible choice for recreational and medicinal usages.

-Jack Photon



is a member of the still crew, add +1 for every 10 skill points.

RECOVERY: Recovering from a binge is a long and painful process. Sobering up is based on the total number of points by which the check is failed. For example, Crewman Withers has an END of 75 and is making a Check 1 at -10. The GM rolls 97 – he's out of control. In order to become sober, he must recover 32 points and not just the normal 22 to his normal END. Recovery rates are as follows:

From passing out: -5 points per hour (STR)

From losing control: -2 points per hour (END)

Note that under this system one can regain consciousness and still be drunk. The victim must wait until recovery takes their points below their normal END number before they will feel like attempting anything simple (like getting out of bed). Checks against DEX must be taken until the alcohol has cleared, but thay are considered to be more or less in control of themselves. Hangover consists of appropriate checks made by the GM if the character attempts something mentally or physically strenuous for 24 hours after sobering.

SPECIAL NOTE: The purpose of this article is to add an extra dimension to your STAR TREK *campaigns and perhaps bring a little humor into them. It is in no way an endorsement of alcoholic beverages, or their abuse. This is something to have fun with, yet the facts on which it is based are not to be taken lightly. Drunk driving is a serious problem. More Americans are killed in 2 years of alcohol-related accidents than the number of those who died in the Vietnam War. If you must drink while gaming, stay where you are or arrange for a ride home. We would like to keep each and every one of you around.*

About The Author —

Joe Clifford Faust is the author of two Science Fiction Novels and numerous short stories. His play OLD LOVES DIE HARD will be published in 1985 by Players Press of Studio City, Cal.

He does not drink.

A Quick Primer on TOS/TAS Psionics...

Mr. Spock on classifying Trelane:
Pure Mentality?
Force of Intellect?
Embodied Energy?
Super-Being?

Certain points here will make more sense once you've read through the rest of the Psionics.

Categorized herein are some ~100 TOS/TAS psionic (as defined herein) instances into eight Categories with a related 9th slate.

While several additional names could have been been notated, I limited duplicate entries to: ***Redjac and The Dove.*** They are highlighted for easy sighting.

Categories:

I. Human(oids)
II. Vampires
III. (Embodied) Energy/Transcendental
IV. Computer/Tech/A.I./Android
V. Substances
VI. Aliens
VII. Vulcans
VIII. Interphasic Space
IX. Insanity

Undiscussed in these Psionic Rules is Insanity. Mental disorders are mostly a thing of the past, all but the few most-criminally insane. For our purposes, we'll discuss the 'stark-raving' end of PSI-induced insanity exemplified by Lee Marvick.

From the moment he introduces himself, Lee comes off as stilted and awkward. His personality doesn't express any better from there. As an Engineer, I'll guess he dumped all his bonus points into INT and ignored his other Attributes and rolled badly in general.
(Lee clearly did not have a magnanimous GM that allowed re-rolls on 1's, 2's or poss. 3's. ;)

Let's call Lee as:

STR	45	CHA	43
END	45	COOL	25
INT	90	LUC	10
DEX	45	PSI	01
		PSI Vector	44

As Lead designer on a Connie, I'll give him an INT 90. INT 80 would be getting into Kirk range and 95+ is Dr. Daystrom. (87, perhaps?) Marvick's CHA could not be lower per the dice and a PSI 01 seems a quite appropriate given.

However, a GM could easily rule the bad love affair could have been the latest in a long line of them for his low CHA vs. high INT making him difficult to be around and has been a hit to his CHA or his overall Vector over the years.

Or not. Marvicks' true CHA is likely closer to 35 is my guess. But even substituting (INT)90+35+1 is PSI Vector 42, so not much difference even for the lower ATTs.

With Lee's Pv of 44 vs. base 29 for humans, he is certainly 'stable' enough on paper.

Either way, it is his anxieties that drive him to Kolos and true insanity. The mere sight of Medusans causes some as-yet determined dice damage/attack vs. the PSI Vector (Pv). However, when dice damage to Vector is too much, it then rolls over to PSI Potential (Pp *or* PSI ATT).

So, while Brain Death occurs at PSI Vector 00, physical death occurs at PSI Potential 00.
(Lt. Joe Toromolen was first demo of this effect, Naked Time.)

The Medusan effect rather than being 'instantaneous', seems more like draining a bath tub. The damage keeps pouring down over minutes to hours depending. We also get Spock hit by the same effect and see a different routing to the same result (death).

Not only does Spock have a much higher PSI ATT, but also INT giving him a Vector likely twice that of Marvick depending on how you write Spock's ATTs. I see Spock with PSI Vector 79. It's the low CHA that does Spock in as well, but it's not nearly as low as Marvick.
(Spock 1st edition = Pv 87!)

Per these House Rules, Vulcans also have a PSI Pool. For game mechanics, the Medusan attack is so overwhelming as to drain Spock's Pool, Vector and Att, dropping him past Brain Death and on the way to physical death. It is the telepathic restoration of Spock's boot sectors that get him back to PSI Vector 01 or better.

From there, the brain would naturally 'heal' itself back to full rating in all cases, not only Spock's situation.

Marvick with no PSI Pool to help, dropped straight to death faster, but 'could' have been saved as well (potentially). I don't expect Dr. Jones may have really wanted to help Lee, even if could.

Miranda was her own piece of psychosis, too suffering from the low CHA messing up her Vector. And yes, Miranda does have a PSI Pool unlike every other human whom do not.

Back to the Medusans in particular.
With wide reports of insanity followed by death, Marvick and Spock are the only two examples. The differences could be 'blood-species' based or 'psionic/non-psionic-species' based. We'll go with the latter.

Per game mechanics what we saw in each case was the instantaneous loss of all PSI Vector with a lingering in the 1/10th range followed by a PSI Potential to 00 and death.

In the case of the non-psionic human, loss of PSI ATT was near-instantaneous. In dice damage, The Medusan did at least 45 points to Marvick covering his Pv 44 and Pp 01.

In the case of the psionic dominant-Vulcan/recessive-Human hybrid, the loss of PSI Potential takes some time while the leap to insanity was near-instantaneous.

I will posit that while PSI damage 'typically' drains first from Pool to Vector to Potential; the Medusan attack bypasses the Pool, disallowing mental defenses to the 'attack', goes straight to Vector down to 1/10th at which Spock would have fallen UNC soon enough if they hadn't been in such a hurry to knock him out.

It is then that while Marvick perished immediately, the bypassed PSI Pool now kicks in and slows the countdown to death which is still inexorable. Perhaps Spock is losing PSI 01 per 1~5 minutes, so it will take a few hours to go.

In the case of dice damage to Spock, it would have been ~150+/- pts range. That suggests similar for Marvick. It could be the more overwhelming the damage, the faster the degradation.

There are no guidelines to the restoration of such mental damages, but clearly possible through mind linking as later demonstrated in ST:TNG with Picard/Sarek.

In our example, Miranda used herself to stabilize Spock who then gets all up-in-her-grill and we go all-fish-eye 'til things are better.

It also seems that contact with Spock helped stabilize Miranda's inner jealosies, restoring some Vector or CHA that had been lost to her or buried under the childhood stresses endured.

There are a few questionable entries. Is the Oracle of Yonada a simple computer transmitting damage to people's heads via implant, or is it an A.I. wielding Psionic frequencies as focused by the implant?

Whereas Landru *does* appear to be an A.I. wielding more than simple waveforms into Psionic frequencies for directing the minions, instilling festival and so on. Of course, that could all be standard electronic warfare as well.

Then, there's a being like Reena Kapec who gains PSI Potential 01 and immediately perishes for the dichotomies instilled.

Speaking of androids, Roger Korby and Brown make a good topic. I would posit that while PSI Potential would imprint, it would fade over time/circumstance or not take (M-5 computer).

Knowledge of the process happening to you would instill the initial rip with the base humanity as espoused through PSI Vector. Korby was highly egotistical, his lifeline to humanity.

Left alone with only his robot friends (where Brown became part of the furniture within himself and to Korby and the others), the great Doctor maintained his unshakeable humanity as the physical and social ice thickened and solidified around him over years.

Korby was left convinced of his full humanity (PSI Vector full rating) though his PSI ATT itself was lingering at an actual 01 for his ego.

When confronted with his own roboticized being and the potential for Andrea to gain PSI 01, Korby goes PSI Potential 00 and pulls the trigger. One metaphysical dichotomy and its back to Deeeva Djroyd Int'l for servicing.

Brown appears to have gone robo-side with relative ease, perhaps not having a strong CHA or self-assurance in the first place. A similar fate would have befallen Uhura had she not been pulling Foolies on Mudd's androids -the *process* for which they are included on this list. The androids themselves were all PSI Potential 00, *as all robot/A.I. are*.

It could also be that an imprinted android like Korby might have maintained full PSI had he been integrated back into society immediately rather than isolated with actual robo-droids. *What if* he'd been ignorant? *What if* Brown had slabbed and chasm'ed Real Korby's body, never telling Android Korby only to find out then with Christine, leading to the same ends?

(Also see film 'The Creation of the Humanoids', 1962)

PSIONIC CATEGORIES - *as seen in TOS/TAS*

I. Human(oid)

01. Talosians
02. Gary Mitchell
03. Elizabeth Dehner
04. Charlie Evans
05. Evil/Good Kirk
06. Argellian Priestesses
07. Galt
08. Gem
09. Platonians
10. Miranda Jones
11. Garth of Izar
12. Cherons
13. Gideonites
14. Priestesses of Neural
15. Isis
16. Tommy Starnes, et al
17. Antosians
18. Theela of Taurus II, et al
19. Magen of Omega Cygni
20. K'Zin
21. Vedala
22. Flint
23.
34.
25.

II. Vampires *-A,C,E*

01. ***The Dove*** *-E*
02. ***Redjac*** *-E*
03. M-113 Creature *-C*
04. Athenians *-E*
05. Space Ameba *-A*
06. Tribbles***** *-E, A, C*
07.
08.
09.
10.

A = Animus
C = Corporeal
E = Emotive

***** Tribbles are the most horrific of vampires! They suck the love right out of you and poop out more of them to suck more love out of you with their cuddily-wuddily ways and ... um. Yeah. Horrible monsters. Steer clear, I tell ya. Leave 'em to me. *I'LL* take care of them for you.

Tribbles
E = Emotive. Love and cuddles
A = Animus. Time and attention
C = Corporeal. Eat you out of house and home

III. Energy/Transcendental

01. ***The Dove***
02. ***Redjac***
03. Organians
04. Metrons
05. Trelane
06. Medusans
07. Gorgon
08. Zetar
09. Sargon
10. Hennok
11. Thalasia
12. Companion
13. Thasians
14. Lucien, et al
15. Magnetic Organism, BFS/a
16. Energy Cloud, PJ/a
17.
18.
19.
20.

IV. Computer, A.I., Android, Technology or Device

01. Roger Korby
02. Brown
03. Andrea
04. Ruk
05. Android Kirk
06. Reena Kapec
07. Neural Neutralizer
08. Landru
09. Nomad
10. Vol
11. Mudd's Android *Process*
12. Psycho Tricorder
13. Mind Sifter
14. The Teacher
15. Spock Controller box
16. Obelisk
17. Oracle
18. Lester Transfer Device
19. Shore Leave Computer
20. Transmuter Wand
21. M-5 Computer
22. Dr. Sevrin's Research
23. Kalandan Outpost
24. Soul of Skorr
25. Thought Duplicator
26. Servo, Gary 7
27.
28.
29.
30.

V. Substances

01. Venus PIlls
02. Omicron Spores
03. Elasian Tears
04. Kironide
05. PSI 2000 Virus
06. Zenite
07. Mako Root
08. Theragen Derivative
09.
10.

VI. Aliens

01. Flying Pancakes
02. Sylvia
03. Korob
04. Gamesters
05. Melkots
06. Yarnek
07. Guardian o'Forever
08. Vendorians
09. Rigellian Hypnoid
10. Lactrans
11. Ari Bn Bem of Pandro, et al
12. Kulkulkan
13. The Preservers
14. Kelvins
15.

Psionic Age Categories:

Typical life-span as notated on the Syllabus Psionica

Anum = I
Decade = X
Century = C
Millenia = M

Immortal = Begin with no end.*
Eternal= No beginning or end.

*Immortal life can be brought to an un-natural end. An energy creature can be dispersed via Transporter, for example.

VII. Vulcans *-an Incomplete TOS/TAS listing*

01. Mind Meld -Spectre Gun
02. Mind Fusion -Paradise Syn, In Truth
03. Mind Probe -Changling, Patterns Force
04. Mind Touch -numerous
05. *"…technique of joining of two minds…"* -Devil Dark
06. Empathic Self-Healing -Privy Lil' War
07. Enhance ATTs -Side O'dise' for one…
08. Pain Reduction -Op Annihilate
09. Premonition -Immune Syndrome
10. Suspend Anim -I, Mudd, Any Other Name
11. "…do without sleep for weeks…" -Para Syn
12. More scattered throughout… Clairvoyance?

Vulcans… This is one where all series, films, comic books, all can be fit into a TOS game. There would always have been the Kolinahr and all the other jazz.. Afterall, Sybock is out there right now at this very moment!

Some shows such as the Picard/Sarek duet expounded immensely on Vulcan depth. TNG Spock had its moments as well.

So, while all those lessons are applicable and *could* be backfed into TOS (and more specifically these House Rules), I don't know how far to take that. Thus will leave everything unseen out of these basics, requiring research beyond my scope and now your pervue to track down.

I don't know the other shows as well as I know TOS. I don't know TAS half as well. Even TNG is pretty freaking deep. Then, I've never seen more than a few eps of the other shows available. Lately I've had TAS looped in the background so that I'm at least soaking in the story, though not catching much of the visuals.

VIII. Interphasic Space

01. Interphasic Space

I don't know that there were any other fixed locations that held psionic attacks that weren't also devices or tech such as the control room in the Obelisk. Or there was that Picard & Data episode where one got taken over by a mask or sceptre or some block of stone that was related to a place I think (I've tried to blank that one out of memory). And Picard had that flute episode.

So, objects are not locations though they may be 'permanently' in place such as a house. It is the house or graveyard under the house that is psionically active, not the very fabric of space itself that is the house or graveyard.

And that is not to say that Interphasic Space is psionic in any way. What is being said is that the influence it exerts on the mind for game mechanics is felt through the PSI and countered with such PSI Blockers as the Theragen Derivative that McCoy came up with *-if blockable at all.*

I hadn't realized when I wrote it, but this is an example of a PSI Blocker drug at work (whereas the Venus Pill and Plato Juice were PSI Boosters). I created PSI Blocker as the anti-Booster, but didn't think there were any show examples. Nice! Spock performed a PSI Blocker at the O.K. Corral, but mental, not chemical in nature.

IX. Insanity

01. Lenore Karidian
02. Ben Finney
03. Matt Decker
04. Tristan Adams
05. Lee Marvick
06. Janice Lester
07. T'Char
08. M-5 Computer
09. Garth of Izar
10. Miranda Jones
11. Simon Von Gelder
12. Good/Evil Kirk

While this is not Psionic per se, I've included these folks as I am seeing PSI Potential as leading to insanity (when factored with CHA and INT). While any PSI ATT can be 01, for these purposes it is the reduction of the PSI Vector that may be the lunacy indicator. Pv = (INT+CHA+PSI)/3 round down

As PSI Vector drops from attacks (mental co-opting or other means such as crippling mental trauma (re: Matt Decker)), once PSI Vector hits 1/10 its original, insanity is induced/more likely.

While PSI Vector 00 = brain death, Vector 01-10 or so would indicate; Total, incomprehensible insanity at 01 through to milder symptoms such as sociopathy showing up at Vector 09 or so whatever the individual 1/10th mark is).

Empathic/Sympathetic/Sympatico responses to other lifeforms derive from PSI Vector. The higher the Vector, the more 'stable' the personality as opposed to others. The only effect is to take longer to reach the sociopathic levels of mental disorder. And that's what insanity is, a disorder of mental processes or cognition. Any destruction to the PSI Vector leads to mental distortion and insanity.

The particular form of insanity will have to be game-dependent on the GM's direction as no ruleset given here could cover such a topic.

SYLLABUS PSIONICA

NAME
SPECIES
STAR SYSTEM
AGE CATEGORY I X C M IMMORTAL ETERNAL
PSI CATEGORY I II III IV V VI VII VIII

PSIONIC ABILITY
Attribute
Vector
Pool

FINDINGS

23010100

NAME/SPECIES:

PERSONAL RATINGS OR SPECIES MODIFIERS

STR	END	INT	DEX	CHA	COOL	LUC	PSI

FOOLIES	FOCUS	PERCEPTION	PERSEVERANCE		ACTION POINTS
			INT	END	

DEMONSTRATED PSIONIC POWERS, TRAITS OR ABILITIES

AWARENESS

Armor
Empath
Enh STR
END
INT
DEX
CHA
COOL
Invisibility
Levitation
Metamorph
Pain Reduction
Speed
Supersize
Suspend Anim

E.S.P.

Clairaudience
Claircognizance
Clairescence
Clairgustance
Clairsentience
Clairvoyance
Mortuscognition
Precognition
Premonition
Retrocognition
Psychometry

TELEKINESIS

Macro
Micro
Transmute
Cryo
Electro
Energia
Kairos
Pyro
Flight
Punch
Wall

TELEPATHY

Automata
Fauna
Musica
Sentiens

TELEPORTATION

Seseportive
Projective
Apportive

OF ADDITIONAL NOTE

Psionics 2020 Not just for Vulcans anymore.

Brain and brain! What is brain?

The 1st and 2nd edition books gave us some rules-of-thumb for Vulcans with a quick mumble on Betazoids in the 4 - 5 years of releases that were. Nothing much was said to voice the minds of the psionic communities of the galaxy.

Not one notion to the Talosians, Thassians, Organians, Medusans, Melkotians, Metrons, Gorgons, Cherons, Athenians, Platonians, Zetarians, Antosians, Kahn-ut-tu Women of Neural, the Empathic Priestesses of Argelius II, or enslaved K'Zinti Telepaths.

Nor the same for the Practical Jokers, Redjacks, Metabeliusian Cloud Creatures, Emotion Vampires, Salt Vampires, the Trelanes, Korobs, Sylvias, Gary Mitchells, Elizabeth Dehners, Sargons, Henoks and nor the Thalasas of space. And let us not to forget, Isis. Meow-weow!

As to Neural Neutralizers, Klingon Mind Sifters, Psycho-tricorders, Universal Translators, Metamorphosises, Shore Leaves, Menageries, Savage Curtains, Naked Times, Enemies Within, the Gems, or dare I even mention the Bems, of the galaxy? No, not much at all.

Admittedly, they did tackle the extra-galactic flying pancakes in one game module *and indeed* the Mind Sifter got a magazine article I haven't tracked down yet.

Yet, that is still to say nothing of Venus Pills, Elasian Tears, Transmuter Wands, Mako Roots nor any of a dozen other talismans and shiney-shines strewn throughout the cosmos. Thanks, guys. :D

Oh, and the effects of mind transfers between bodies or machines, all of you, you Doctors Janice Lesters and Roger Korbys of the galaxy! Hey, Uhura! Be very, *very* sure. :p

Nods to the Oracle of Yonada, Landru, Nomad, the Teacher and Vol are also due.

Back of napkin says nearly half of all episodes don't just mention, but FEATURE a psionic ability, trait or manifestation. (A further tally indicates ~5/8th all episodes!)

So, none of any of that. Really?

Here. Hold my dice.

(Ohh... Umm... Uhhh...)

It turns out that the Fanta Crew did debate psionics and apparently quite a bit before deciding against the idea and left things as they were.

Given the range of psionic abilities shown in the series, this system really needs to cover them all and coherently so.

So, where's this all coming from? Entirely off the cuff based on the show and game system. My prior experience with 1stEd AD&D and Traveller classic lend little useful. A list of powers from Traveller did make a handy, one-off reference. Other than that, psionic attacks, spells, net running and all the moderna of RPG's suggest similar interpretations.

Where there are no explicit examples from the show, the particular psionic power is likely a common extrapolation, derivation or variation found in related sci-fi, horror or pseudo-scientifical, vox-populi apocrypha of our or historical times that may as well be addressed.

General Notes

Unless your character is a Psionic, is from Psionics or has **Trivia: Psionics**, they are unlikely to know a single thing about anything in this section. Even to those who have come across psionic events in person, it is still little more than astrology, illusion and trickery. Denebian slime oil for psimpletons.

When it comes to 'pride before the fall', Psionics are the worst.

"Psionic(s)" is a contextual term referring to a person, a people and/or a power, activity or discipline, depending.

Working Terms

Pspecies, contraction "Psionic Species" vs. Species	
The Psionic,	the one using powers
The Non-Psionic,	most of the galaxy
The Interloper,	Psionic wanderer, plunderer
The Subjugator,	Psionic in control
The Target,	object of the Subjugator's attention
The Attacker,	offensive party
The Defender,	defensive party

The Five Disciplines

1. Awareness
2. E.S.P.
3. Telekinesis
4. Telepathy
5. Teleportation

Psionic psamplings

Psionic psocieties may be at the pstart of their civilization, or millenia into their psociety or building on the ruins of a previous era or past civilization.

There are very few if any 'Total Psionics' who have mastery or abilities in every possible discipline or power. Many pspecies exhibit broad ranges of disciplines with individuals expressing mastery in one or two disciplines or powers. There are those which have one specific discipline and none else.

The Empathic Priestesses of Argelius II have the specific Clairvoyant power of psychometry and no other evidence of other powers in their entire species or history. And even for this narrow ability they are prized members of society.

Conversely, a species such as the K'Zin with a psimilar birth-rate produce a very particular telepath, enslaving all such Telepaths from birth as prizes siezed.

Some societies do go this darker route and kill or ostracize the psionicly-active.

It's true that even the most low-power psionic can overwhelm any number of non-psionics, if they're careful about it.

Unless the entire or a majority of society or group of peoples is psionic, the lone individual will always conceal their nature to protect themselves from hunts and/or very public adorations.

Pray you never encounter a sociopathic, narcissistic psionic of any ability or strength. There is no end to the havoc and destruction such a being can wring.

Intuitive Understanding

All natural born Psionics have an intuitive understanding of their powers and 'know' when an effect is about to wear off, how much time they have to get to safety and how much they can push themselves.

Any amount of powers can be used at the same time as long as the points and any Fatigue or other issues are accounted for.

The Exciting World of Brain Death

Step right up and sprawl helpless from where you stand never to experience the greatest nothing of your non-life to never happen again ever, never more.

Sorry. Are you still here?
Didn't think so. Neither didn't you.

Psionics for Non-Psionics

Non-psionics tend to be at the complete whim of the Psionic amongst them having no other recourse than their Psi Vector or any Tech on hand.

Any saves called for will always be to the current PSI Vector, not the natural rating.

Healing PSI damage has a tricky answer as it depends on the kind of damage.

There's being stunned or psychicly hammered into unconsciousness and then there's having your personality dismantled, thrown on the floor, stomped, re-stomped, mixed with dirt and debris from other minds and then glued back together without care. Where does one begin?

Normal point damage is healed at
1/10 PSI Attribute rd /30mins

Even simplistically, Uhura's re-education and personality re-build after encountering the Nomad probe was a bit far-fetched even for the needs of Star Trek's hour-long, wrap-it-up-tidy-for-the-week format.

Non-Psionics that come to have permanent PSI powers tend to develop dangerous mental instabilities. Captain Garth of Izar, driven to Napoleonic grandeur and delusions of ultimate power.

Where Psionics naturally born to a typically non-psionic species fair better, the power is still so overwhelming, the lack of peer understanding so debilitating that while the Psionic may be 'stable', underlying currents can tip that scale. Dr. Miranda Jones driven to petty jealousies by latent fears and paranoias, thank you very much.

And when the gifts of psionics are bestowed upon children not born to them, the immaturity, lack of experience, emotional turmoils of youth and the thousand other intricacies of the child-mind tend to create genuine 'monsters', for as unknowingly so that they themselves are to their condition and temperament. They are still children, after all.

While Star Trek has the Starnes Expedition and Charlie Evans, The Twilight Zone covered psionic children nicely as well. This is one time where you most assuredly do not mix the chocolate with the peanut butter.

Simply hide the matches from Lt. Drew Barrymore, don't tell Commander Jennifer Connolly what deck the insectarium is on, keep Chief Petty Officer Lawnmower Man off the comm lines and for ship's sake WHATEVER YOU DO, keep Ensign Carrie from attending the ship's dance tonight!

With that, all will be well. *OH darn*, I've got a warp shuttle to catch for my... appointment. Yeah. Good luck! **Bye-eee!** (K'POOF!)

PSI Vector

((INT + CHA + PSI)/3 rd)

All sentient beings, psionic or non-psionic, have a PSI VECTOR. Your PSI Vector is your mind's ability to withstand psionic attacks, resist interlopers and other unwanted intrusions.

The PSI Vector gives a low PSI with high INT + CHA a fighting chance against a high PSI with low or moderate INT and/or CHA, with edge going to the superior.

This also means that the four-out-of-ten humans with a factual PSI 01 Attribute won't be outright slaughtered or otherwise rendered brain-dead for the single PSI point they have.

Your PSI Vector rating is your defense points for psionic attacks. Damage done to you comes off your PSI vector.

When PSI Vector = 0, you are brain dead. You will need a Telepath to restore your mind. Your body will remain in a vegetative state as long as it's fed, watered regularly and given some sunshine. You know, it's also said that plants such as yourself like music, too.

PSI Pool

While everyone has a PSI Vector, only Psionics have a PSI POOL. The PSI Pool is the same number as your PSI Vector.

The PSI Pool is similar to LUC in that points are spent and regained. The Pool is similar to END in that damage done is first done to the Pool, then the Vector. For non-psionics, damage goes straight to their PSI Vector.

PSaves

You may be called upon to make saves vs. PSI Attribute, Vector or your Pool all depending on situation and context as determined by the GM as appropriate.

Time

While thought is nearly instantaneous, certain powers consume 'real time'.

A lightning bolt, teleportation, telekinesis all take perceptible amounts of time, allowing others to act in response. Whereas certain Vulcan techniques require silence and minutes-to-hours of time.

Then, there is the single PSI Burst could render a dozen people instantly unconscious, immobilized or otherwise helpless before one Action Point is spent.

Damage

Like END, there are WOUND, FATIGUE and STUN varieties of damage with each acting for PSI similarly as to END.

Wound Damage is the dice points of damage inflicted by various psionic attacks. Point damage comes off the PSI Vector for non-psionics and the PSI Pool first for Psionics, with additional Fatigue Effects occurring at various stages of decline. Once the PSI Pool is drained, the Psionic *then* takes damage to their PSI Vector. Note: PSI Vector = 0 = Ψ☠

Illusionary Damage is as real as real gets while it is being experienced. The pain is immediately gone with the illusion dispelled, though the memory will remain as strong as any other for the rest of your life. If knocked UNC by pain, immediate wake up fresh on the illusion dispelled.

Illusionary damage can kill as the body reacts to the shock. The skilled Telepath may be able to interfere with the body's response. GM discretion and rulings.

Psionic Fatigue is both mental and physical, directly affecting END on a 1 - 1 basis once the PSI Pool reaches 1/2 total (per END page 21, Weakened Conditions). Severity can lead to death. Non-Psionics cannot suffer psionic fatigue.

Psionic Fatigue

POOL STATUS	EFFECT
1/2	save vs. full PSI Pool once or fall UNC 2d10+10 mins
1/4	save vs. half PSI Pool rd per power used or fall UNC 4d10+20 mins
1/10	Save vs. quarter PSI Pool rd per power used or fall 8d10+40 mins
1/20	Autowash. Your spin cycle will last 16d10+60 mins whereupon normal REST will allow your PSI Pool to begin filling again.
0	Welcome to Comatosis Permanentus. Nothing will be happening from here on out. Catch up on that dreamless sleep, maybe. If your body can be kept alive, there may be a chance to restore your mind*. You will otherwise have one minute per PSI point rating to get your PSI Pool to at least 01. If not, the PSI Vector followed by the Attribute will lose 1pt/turn until PSI Attribute = 0.**

PSI Pool is restored at 1/20 PSI rd per 15 minutes of **REST**. (see definition page 20)

*The mind is essentially like unto a shattered bowl that must be put back exactly or a different or dysfunctional person or persona may result or later emerge. From lost, jumbled memories to emotional ravages that weren't there and disorders of all kinds. Never mind being shipped off to the local farmer's market vegetable stand.

** PSI Attribute = 0 = cessation of all bodily functions. Your animus has left the building. R.I.P. Lt. Joe Tormolen and likely one or two others I'm forgetting.

Doctor-types

While standard Medical-grade stimulants and similar drugs will function on the END as normal, they will do nothing to revive a person gone unconscious by means of psionic attack or similar psionic deprivation, method or means.

The person will come out of it, or not. Only a Telepath would be able to diagnose or assist such a sleeper

There is no known medical treatment as the event is so uncommon. There is also no medical cure for psychosis induced by Telepaths. R.I.P. Larry Marvick. But psychosis brought on by gaining psionic powers can be healed, Garth of Izar.

Stun Damage/Effect

Typically 1d10 Turns. No action or defense, mental or physical. You are otherwise sidelined in your own little world for a few as your mind reels. Stun damage is immediately regained when shaken off.

LUC Saves, FULL, GRAZE, SLIGHT

A Target can use their LUC to 'dodge' the worst effects of psionic damage, only where damage is rolled for.

A Psionic attack always hits and dice damage rolled is considered FULL. A Target may use their LUC to reduce FULL damage to HALF (GRAZE) for 20 LUC points or to QUARTER (SLIGHT) for 40pts of LUC *per Energy Weapon rules*.

LUC cannot be used to avoid or otherwise negate a psionic effect done to you. That job is for your PSI Vector.

Example If a Telekinetic decided to whip you around the room and slam you into a wall, your PSI Vector is your save to avoid being picked up and accelerated. You can then use LUC to reduce the damage done to you per the above.

Flown out the window instead of into a wall? You might want to use that LUC roll to catch a tree branch instead.

PSI Drugs

There are three types. The first two are Blockers and Boosters. Both work like Sedatives and Stimulants for END, boosting or blocking the PSI Attribute or PSI Pool ratings.

The third category of drug are Extensors. Extensors not only affect the user, but also the PSI of those around them. The most notable example is the Venus Pill. Extensor rules are GM dependent and should follow the flavor given in the show and laid out here in this examination.

Extensors are usually for Non-psionics. There are no known examples of Psionics using Extensors. PSI drugs in general are a very arcane subject with relatively little research done by science at large.

Giving a Non-psionic PSI Block will make them oblivious to all PSI Interlopers for the drug's duration. Multiple doses do not have any side effects or pitfalls, merely extending duration of effect.

Giving a Non-psionic PSI Boost will temporarily grant them some GM determined PSI power(s) with a full PSI Pool.

They also suffer NO crash effects for the first 1d10 doses ever taken.

PSI Boost grants a full Pool, but no ***experience***. Intuitive usage grows from zero to 1/2 PSI Attribute 'quickly' over GM determined time, with eventual full mastery over longer terms. (Plato's Stepchildren)

Boost has no qualms on zapping your PSI Attribute or Pool to way-way above a 99 rating.

	PSI Boost/Block Effects		Crash Effects	
	PSI Mod	Duration	PSI Mod	Duration
Light	$^{+/-}$1d10 PSI	3d10 Minutes	-2d10	1d10 Minutes
Med	$^{+/-}$3d10 PSI	3d10 Hours	-6d10	1d10 Hours
Hvy	$^{+/-}$5d10 PSI	3d10 Days	-10d10	1d10 Days
Xtra	$^{+/-}$10d10 PSI	3d10 Weeks	-10d10	1d10 Weeks

Boost or Block can change your PSI Attribute or your PSI Pool. One or the other, not both. If one is taken while the other is in effect, take each PSI Mod result, add their sums and take 1/10th ru in PERMANENT DAMAGE to your PSI Attribute once the last drug effect wears off. No save. No LUC. Or keep dosing to avoid the crash.

Multiple Doses

A second dose taken while the previous is still in effect will have 1/2 the benefit and double the crash effect. A third dose is 1/4 effect and quadruple the crash. The fourth dose is 1/8 effect and octuple the crash. You want a fifth? For r'ilz? 1/16 effect, secdecum damage.

If a second dose is taken during the crash, full dose effect is had, but crash is doubled when it wears off. Taking a third dose during the next crash will have 1/2 dose effect and quadruple the crash. Then 1/4 dose effect and octuple the crash. Etc.

Crash Effects are otherwise **LETHAL**, but personal 'heights attained', overwhelming.

Drug Usage

Every dose has the chance to reduce PSI Attribute by 01pt. After the crash, if PSI = 51^+, roll d% above your PSI to avoid the penalty; or if PSI = 50^-, roll d% below your PSI Att or lose 01pt.

LUC points applied are 3 to 1.
Thus does 30 LUC pts = 10% Die Mod.

PSI is easy to lose at first, then averages out before plummeting in freefall to 0 and Comatosis Permanentus.

Chronic Drug Usage

As defined as more than one dose in any GM-determined time frame whether in-game (Hours, days weeks) or real-time (game session, mission, campaign). Once the 'chronic' dose has been taken, roll 1d10 for additional PSI Attribute damage, avoided by saving vs. PSI per above.

Venus Pills

In the case of Extensors, usage not only goes on to damage your PSI Attribute, but also one related Attribute(per above).

As an example, the Venus Pill destroys the PSI and the one associated Attribute of STR, END, INT, DEX, CHA or COOL of the user depending on how the pill and the user interact with themselves and others. It will only be one additional Attribute, not the many that are affected.

Drug Abusage

All PSI drugs are especially addictive for the exposure to the new world previously undreamt of, now opened around them like a new sense they MUST explore and learn.

With each dose taken, make a normal LUC save, plus 01% per dose ever taken. The GM has some paperwork ahead of them to confirm the player's calculations.

If FAIL, take a second dose before the previous crash ends and roll again. And again. Hope for good dice is all this author can offer.

Psionic Combat

Psionic vs. Psionic

Current PSI Pool vs. Current PSI Pool

Psionic vs. Non-psionic

Current PSI Pool vs. Current PSI Vector

Psionic vs. Artificial Intelligence

Current PSI Pool vs. INT Rating

--- May the best margin win in each case ---

All psionic activities take time, Action Points, or are near enough to 'instantaneous'. All psionic powers automatically 'hit' their target(s) without question or fail.

The declaration to use any psionic power requires one action point, one successful FOCUS roll and then time and power costs are added to that.

Instantaneous powers go off with the declaration or as Opportunity Actions later with the one action point spent.

Once initially declared, many psionic powers become Opportunity Actions, but only once declared. Not all powers can be used as OA's and are so noted in their descriptions.

Non-psionics are always immediately on the defense in any given pscenario or are moments away and simply don't know it yet. Poor fools. . .

A Psionic cannot initiate their powers if in active-combat already. They can try, but otherwise must disengage or gain distance from the attacker to think.

A Psionic already engaged in usage of their power who is then physically attacked must roll a FOCUS save, minus the margin of their FOCUS and the attacker's successful To-Hit roll.

If successful, Psionic can maintain their power, but lose all FOCUS if the physical damage is greater than 1/5th their PSI Attribute. If Fail, immediate loss of FOCUS drops their power until they can disengage and gather themselves again.

Tokens and Talismans

An intercessory object which helps or functions to channel the psionic power from subjugator to target. It may be a common chunk of mineral, a biological aid such as a plant root, a fashioned artifact or any techno-mental device.

In each instance it is likely the Psionic can still use their powers without the talisman, they are simply not as effective or limited in some other way they wouldn't be had they the talisman which would focus, amplify or otherwise direct the power to greatest effect.

While further study would have helped, it appears the Emotive Vampires known as Athenians were able to imbue psionic energies into structures which they then carried with them for sustenance while coasting between the stars, having no mortal adorants to sustain them.

As the stored PSI power is consumed, the structure disintegrates. The psionic energies imbued wear away the covalent bonds and nuclear forces that surround us, permeate us and otherwise appear to bind the galaxy together.

The being known as Apollo was found among such ruins, the last of his kind, feeding off the dying echoes of glories gone and awaiting new adorants to find him. His companions had cast themselves to the winds of eternity long ago.

There may indeed still be psionic echoes in ancient sites, allowing scientists to trace any exodus to discover further evidence and clues to the Athenian nature.

Tech

There may be technological devices which can mimic a psionic power or effect, but can never match a true Psionic at their level.

Examples of such tech include Helmets to block or amplify the PSI signal and similar devices. The Universal Translator studies brain patterns of the Target to determine intent and marries that with speech. The Transporter system mimics Teleportation. Radio and Video mimic Telepathy and Clairvoyance. There are too many possibilities to cover.

The existing equipment lists are relatively simple in their coverage. Any PSI tech should be similarly brief.

Example PSI Helmet. Blocks PSI attacks up to n^1 PSI (rating) or absorbs n^2 PSI points damage before failing. **Done!**

Robots & Androids, Computers & A.I.

All forms of automata have PSI Vector 0 and are fully susceptible to the effects of Automata Telepathica. An A.I. can resist a Telepath using it's INT as its PSI Pool, but once drained, the A.I. is fully compromised and controlled by the Psionic.

Automata Telepathica is not the simple telekinetic flipping of switches. Automata Telepathica is an intrinsic control and inherent understanding of the mechanisms and data flows of a given system.

'Understanding' is the only thing that slows a Telepath from instantly co-opting any device or system encountered. However, it's only a matter of time before their control is absolute.

While Vol and the Oracle of Yonada required surgical implants to direct their energies, Landru was able to broadcast energies to any beings who had been 'absorbed', The 'Absorbed' likely having been implanted with microscopic receptors that would likely bind to the brain stem or other neural aspect.

The Nomad Probe was another digital being able to manipulate psionic frequencies to its ends, but required no technological receptor in the target being.

Lastly, ultrasonic frequencies such as Dr. Sevrin pioneered are the most crude forays into rudimentary psionic territory, but a start none the less.

Mind Transference

Transfers to robot bodies.
Initial PSI Attribute is transferred, but fades dragging PSI Vector to 0 without brain death occuring. The PSI Attribute then remains for persona purposes, but the PSI Vector 0 equates to the last cessation of the organic being that had been.

How long the fade takes, what hiccups may occur and other iterants are up to the GM. Reducing the cyborg's PSI Attribute further to 0 equates to a metaphysical dichotomy and total shutdown.

Transfers to other living bodies.
A PSI Vector battle ensues with the exact nature of the struggle determined by the GM. Distill Turnabout Intruder/Lights of Zetar to your needs.

Knowledge Transfers such as from the Teacher will tell you what brain is if you didn't know already.

Fairy Tales, Ghosts and Goblins

Before detailing the five psionic disciplines, it's worth a moment to mention some particular types of Beings that don't fall into other categorizations.

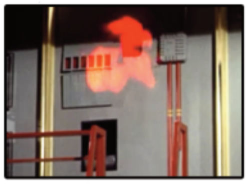
Vampires

There are three types, Corporeal, Emotive and Animus. Each draws a quality from the target that both find essential to life. While each Vampire has different methods and avenues, they all end the same, with the target's death.

The Corporeal Vampire typically uses hypnosis to PETRIFY and then feast off some quality of the helpless target, whether specific like salt or brains or general like blood or flesh. Target's death by physical destruction.

The Emotive Vampire feeds off the emotions emanated by those around itself. It will spark simple, primitive emotional conditions which cascade through the target brain to feed and amplify the Vampire's state, for a larger feast.

Those feeding off adoration or love seek to make their target happy and tranquil.



Those feeding from violence may have healing abilities to continue the cycle. Target's death by cognitive collapse or physical destruction in each case.

The Animus Vampire feeds off the very life force of its target. Some or all of the Target's Attributes are drained to zero. Target is often unaware until too late, though those around them will see the effects, especially in the last stages. PSI Vampires are worst as the Target's persona simply disappears over time, leaving a mindless husk.

Target's death by disintegration/desiccation/collapsation. Difficult to describe. Most unpleasant.

Lycanthropes

It's been labeled a mystical curse and even a disease. In actuality, Lycanthropy is a psionic aberration where the mind has no control over its abilities.

In this case, Lycanthropy affects the same portion of the brain that allows Metamorphs to alter their forms.

While Metamorphs typically have total control over this process, Lycans do not and are at the mercy of whatever external force triggers their affliction.

Anecdotally, planetary tidal and geological stresses are associated with the bodily transformations. The transformation typically lasts for some 1d10 hours surrounding the stress factor.

Returning to normal form thereafter, the Lycan has no memory of the events or are scattered and dream-like, even nightmare-ish depending on events transpired.

Further, while Metamorphs are able to change into a wide variety of forms, the Lycan is restricted to one for their life. Several typical forms are all those of indigenous animals. On Earth, Lycans were often thought to be Wolves, Rats, Bears, Boars and even Tigers; often with the prefix "Were". i.e. "Werewolf".

One last curiosity is that the Lycan condition, when active, also lends a form of body armor or empathic healing traits as these beings cannot be killed by normal means or only by particular metals, means or methods. They can bleed, but don't die and are fully healed on transformation.

There is no medical cure for these people and no known telepathic healings made. Perhaps the ancients were correct and Lycans are genuinely a 'cursed' people. No matter where they are from or what species they are, they all share these same traits described herein.

The Third Type

This is a tricky one as it's not exactly what it sounds like. Ok. Ready for it? The Undead. Oh! See? I told you. tsk.

The Undead aren't exactly 'dead'. Well, yes. They are very actually dead in every measurable way. But more to the point, the corporal remains are actually imbued with psionic energies.

Whether a Necromancer in control or a deceased and powerful Psionic, the remains are 'powered' by psionic energies of the Psionic, alive or dead.

In a similar vein, a person's spirit ('katra' to the Vulcans), is transferred to another vessel upon their biological deaths.

There are a number of species showing this inclination and even among non-psionics the various memorial ceremonies for the departed are maintained to 'preserving the memory of', as the actuality of the person has gone. Psionics are able to preserve the actuality of the person's 'spirit', forever retained.

In the galaxy at large, legends converge on common themes and types including; **Ghasts, Ghouls, Zombies, Homunculi, Lich, Demi-Liches** and everybody's faves, some good, old-fashioned **Skeleton Warriors**.

Gremlins and Ghosts, No Goblins

As to these two critters; where hoaxes and trickery have been eliminated, there is, again, some psionic source garbled up in there somewhere.

Gremlins could simply be the psychic manifestations of angst and all sorts of other things and reasons.

Ghosts and Spirits, again while solid evidence is scant, show some lingering or 'live' psionic activity, deliberate or residual that is causing the apparitions.

In these cases, it's just as likely a live-telepath is hiding behind the curtain, extorting or otherwise abusing those unfortunates caught up in the act.

Of course, this would count as a hoax, not a genuine ghost-like situation.

A 'genuine' ghost may in fact be an inter-dimensional being caught between realities.

The Five Disciplines

To many, clairvoyance, telekinesis and telepathy are different words for the same thing. In some ways, that's not incorrect. In others, it shows a misunderstanding of mental powers.

Through to the 2250's, Starfleet maintained "ESP'er Ratings" for all personnel before re-categorizing it as the Attribute "Psionic Potential" in early 2260.

Awareness, the weirdo of the bunch. Where the four other disciplines reach outwards from the mind, Awareness looks inward and is the mastery of the manifest self, of 'mind over body'.

E.S.P., the ability to know about a remote location or given object.

Telekinesis, the ability to manipulate objects without direct, physical contact.

Telepathy, the ability to read and control minds, send thoughts and similar.

Teleportation, the ability to be in a non-contiguous location moment to moment without physical motive power.

Common Power

The one common power it seems that all Disciplines may potentially exhibit is:

PROJECTION Ability to imbue a target with some amount of their powers.

A Telepath would project the ability to read minds. Clairvoyants would project the ability to know things. A Teleporter could imbue the gift of suseportation. Etc.

The amount of PSI Pool points imbued is the extent of the gift and subtracted from the Psionic's Pool points. Once used, that is that. There are no PSI penalties or other detrimental factors to the so imbued.

Requires physical contact and 1/10 PSI Attribute rd in Action Points to imbue the target with however much power.

Modulating the PSI Curve

While a given PSI ATT of *n* may indicate certain broad-spectrum powers or power levels, it is the prerogative of the GM to modulate the PSI ATT across those powers.

Just because their PSI ATT is 99 doesn't mean they have any skill or practice. Rather than create a 'Psionic skill level', it's left to the GM to consider the balance of the Psionic opponent and the gaming group the GM is running for. Psionics are exceptionally powerful and can easily destroy any party they come across.

However, the GM must also be exceptionally careful not to contradict themselves or the rulings made so far in any given game or campaign.

So yes, perhaps this power is that strong, but perhaps this other power is out of practice and weaker than it could be. Use it or lose it. An out-of-shape Psionic is similar to not exercising the body.

Eventually, unused powers are lost. But just like riding a bike or picking up a tool long disused, the Psionic will find new insights into themselves, their power and ability for the time away. They may not whip a boulder at your head as fast as once could, but just like muscle-memory, a Psioinic will 'quickly' be back up to speed, even surpassing their old heights to new primes.

Awareness

Body Armor	No matter how many individual attacks suffered in a given Turn, you are immune to any single attack that causes less then your new END multiplier for the duration of effect.
Empathy	From the sharing of emotions and sensations to healing physical wounds and psychic traumas.
Enhanced STR **END** **INT** **DEX** **CHA** **COOL**	Self-awareness allows you to manifest exceptional abilities across any given Attribute(s) for a given time. Enhancing INT does not allow for retention of knowledge gained. Any other seemingly long-term gain that can be deduced from the higher Attribute rating will disappear with the Enhanced effect. It is very possible for a given Psionic to seemingly have permanently raised Attributes, but they require PSI Pool to maintain. As long as the Points are spent and Fatigue and similar issues accounted for, a Psionic may have any number of Enhanced Attributes running at the same time at differing levels of power.
Invisibility	You are invisible to the sight of all beings and technological devices. You still leave tracks, sounds, smells and tracings.
Levitation	Altitude and duration are interchangeable. Float high for less time or low for longer time. Levitation is always straight up from the 'launch point', relative to local motion of the surface levitated from. If given a rope, could pull self around or achieve lateral motion otherwise impossible.
Metamorph	Same relative mass, any volume, organic, non-organic shapes and will take on exact characteristics of any material, texture and **ALL** features assumed. Masquerading as tech amongst tech does not allow for functional usage while so disguised unless also Telepathica Automata mimicry.
Pain Reduction	Reduces the sense of pain on 1 PSI Pool to 5 END point per Turn. This does NOT heal the damage, merely mutes the pain. Make Fatigue rolls, suffer END points, no UNC rolls need be made up to END 1 when collapse.
Speed	Blindingly fast motion. Speed is different than Enhanced DEX as Speed retains a normal DEX Attribute for saving roll purposes, whereas Enhanced DEX raises the actual Attribute rating. Speed only increases the Action Points available, not the fumbly-fingers doing stuff.
Supersize	Different than Metamorph as the Psionic can alter their physical size only, not otherwise alter their form. In this case, mass DOES increase or decrease relative to size attained, smaller or larger.
Suspend Animation	To all intents and purposes and for all that modern medical science can tell, you are DEAD - DEAD - DEAD.

Enhanced Attributes

*Once activated, this is a continuous cost.

PSI	Attribute Effect		Duration		Pool Cost	
Attribute	Term	Burst	Term	Burst	Term*	Burst
01 - 50	x 1.5	x 3	1d10 Minutes	1d10-5 AP	3	10
51 - 75	x 2	x 4	10d10 Minutes	1d10 AP	4	15
76 - 90	x 2.5	x 5	100d10 Minutes	1d10+5 AP	5	20
91 - 99	x 3	x 6	10d10 Hours	2d10-5 AP	6	25
00+	x 3.5	x 7	R U Kid Me?	2d10 AP	7	30
150+	x 4	x 8		3d10	8	40
200+	x 5	x 10		5d10	10	50

Body Armor

PSI Attribute	Cost	END	Duration
01 - 50	5	x1.5	1d10 Turns
01 - 50	10	x2	1d10 Minutes
01 - 50	20	x2.5	1d10 Hours
51 - 75	25	x3	1d10 Days
76 - 90	30	x3.5	1d10 Weeks
91 - 99	40	x4	1d10 Months
00+	50	x5	R U Kid Me?

Suspend Animation

PSI Attribute	Cost	Duration
01 - 50	1	1d10 Turns
01 - 50	5	1d10 Minutes
01 - 50	10	1d10 Hours
51 - 75	20	1d10 Days
76 - 90	25	1d10 Weeks
91 - 99	30	1d10 Months
00+	40	R U Kid Me?

Invisibility

PSI Attribute	Cost	Duration
01 - 50	1	1d10+5 Mins
51 - 75	5	10d10 Mins
76 - 90	10	20d10 Mins
91 - 99	15	30d10 Mins
00+	20	1d10+5 Hours

Supersize

PSI Attribute	Cost	Size Ratio	Duration
01 - 50	10	2x	10d10 Turns
51 - 75	20	3x	20d10 Turns
76 - 90	30	5x	10d10 Mins
91 - 99	40	10x	20d10 Mins
00+	50	20x	10d10 Hours

Levitate

PSI Attribute	Cost	Distance/Duration
01 - 50	1	1m / 1d10 Turns
01 - 50	5	1m / 1d10 Minutes
01 - 50	10	1m / 1d10 Hours
51 - 75	20	1m / 1d10 Days
76 - 90	25	1m / 1d10 Weeks
91 - 99	30	1m / 1d10 Months
00+	40	R U Kid Me?

Speed

PSI Attribute	Cost	AP Multiplier	Duration
01 - 50	10	1d10/2 rd	1d10 Turns
51 - 75	15	1d10/2 ru	10d10 Turns
76 - 90	20	1d10	1d10 Mins
91 - 99	25	1d10+5	10d10 Mins
00+	30	2d10	1d10 Hours

Metamorph

PSI Attribute	Cost*	Duration
01 - 50	1	1d10 Turns
51 - 75	5	1d10 Mins
76 - 90	10	1d10 Hours
91 - 99	15	1d10 Days
00+	25	R U Kid Me?

Once activated, this is a continuous cost per Time Unit until dismissed 3 minutes costs 15, 3 days costs 45, etc. Cost is up front per time unit; 1st day costs 15, continuning to the 2nd day costs another 15, etc. The Metamorph can revert before the day ends, but points are spent.

The d10 variable is the max time a metamorph can hold their form in this instance. They can revert any time before, but cannot maintain longer. They do not know the max time they can hold the new form, but can feel the end draw closer.

Failure to actively maintain the new form reverts the Metamorph to normal and STUNNED for 1d10 Turns. Any single blow in combat causing more than 1/2 PSI Vector in END damage will revert the Metamorph thusly.

The GM should adjudicate other situtations such as extreme surprise or shocks to the system. Voluntary reversion does not incur a penalty, only the unwilling transformation due to stresses and/or similar factors. Transforming back and forth within the initial 1d10 duration costs no extra points, but does cause FATIGUE damage at 1/10 PSI Vector round up per transformation, back and/or forth after the first full transform/reversion. That one is 'free'. Under great duress. a Metamorph may attempt cycling through many forms to escape though it may cause them additional harm in so doing.

Empaths and Healing

Empaths range from transmission/reception of emotion or physical sensation to the complete physical or mental healing of a target, such as Gem exhibited.

Empaths of all sorts take emotional, mental and/or physical pain (or exuberance) into themselves manifest and then 'bleed off' the 'damage' with their PSI Pool. Or they can add to their pool with positivity. In all cases, must touch target.

While many psionic peoples may exhibit empathic qualities or abilities, true empaths tend to be species-based or manifest individuals amongst a psionic populace (as may other 'specialty' powers in given individuals).

An Empath can heal up to their PSI *or* END Attribute, whichever is the lesser.

To heal physical damage, the Empath must be able to absorb the target's wounds to their END Attribute.

An Empath suffers no Fatigue or UNC rolls imbued by the target's wounds. That does not mean the effort won't otherwise strain the Empath into UNC when all is settled.

Empaths cannot choose the exact amount of healing to impart, nor know the full extent or specifics of the target's wounds and the impact upon themselves.

An Empath can choose **Soft, Light, Medium** or **Heavy** application of healing.

Soft Healing

1d10+(1/10 rd Empath's PSI Attribute.)

Light, Medium and Heavy Healing

The other categories are good for up to **1/3 END each of the Target's damage** regardless of the Empath's Attribute.

This makes most Empaths extremely reluctant to go very far out of their way to help others when it comes to putting their life on the line. It also hurts. A lot!

The costs to the Empath are that the target's damage healed equals one point against the Empath's END Attribute.

The Empath can stop there and suffer physical damage. To continue, the END damage is healed by/transferred to the PSI Pool. If that causes an UNC save and it fails, the Empath will sleep a bit. As said, they will not pass out due to the END damage absorbed.

With the damage transferred to the PSI Pool, those points are then considered drained and spent and Fatigue and any other circumstance kicks in.

The entire process takes 1/5th Empath's PSI Attribute rd in Action Points per 'level', **Soft, Light, Medium, Heavy.**

Even if attacked, the Empath cannot break the bond, lest the process backfire and kill Empath and target.

In this case, damage absorbed up to that point by the Empath kicks back to the target AND stays with the Empath, PLUS the target receives the same damage from the attack that the Empath just suffered AND both take 1/10 Empath's PSI Attribute damage, round up.

Attacks to the target do NOT cause this same effect above. More damage is simply more damage to the target and more for the Empath to potentially heal.

Empathic healing is not eligible as an Opportunity Action. Causing light physical or emotional sensations are OA's provided the target can be touched once.

Healing

* See healing process above for costs

PSI Attribute	Cost	AP	Effect
01 - 50	01	1	Transmit Touch
01 - 50	05	1	Transmit Emotion
51 - 75	10	*	Heal, Soft
51 - 75	15	*	Heal, Light
76 - 00+	20	*	Heal, Medium
76 - 00+	25	*	Heal, Heavy

Extra Sensory Perception

1	Clairaudience, remote hearing
	Claircognizance, knowing without knowing how or why you would know
	Clairescence, remote smelling
	Clairgustance, remote tasting
	Clairvoyance, classic "E.S.P.", knowledge gained 'outside' the 5 senses
	Clairsentience, remote touch
2	Precognition, viewing events about to happen
	Retrocognition, viewing past events
	Mortuscognition, viewing events & life surrounding the departed
	Premonition, viewing of current events elsewhere
3	Psychometry, details on the past/future of an object/location

Each successive attempt to establish contact after a failure or disconnect adds a cumulative +10 FOCUS roll.

Contact is made with FOCUS rolls.

Information is gained through PERCEPTION rolls.

FAIL indicates the visions are cloudy.

CRITFAIL = No Go at this time.

Roll % again, ≤50 = bad juju

51≥ = coincidence

E.S.P. is not eligible for Opportunity Actions. Once engaged, each power must be followed through. If disengaged by any reason, must re-establish contact which becomes ever more difficult with more attempts.

Category 1

PSI Attribute	Cost	AP	Distance**
01 - 50	1	*	1km/Turn
51 - 75	5		10km/Turn
76 - 90	10		1,000km/Turn
91 - 99	20		10,000km/Turn
00+	25		100 ,000km/Turn

* Min 1d10 -[1/10 PSI Attribute rd] plus up to ALL per Turn depending on information desired. For every successive 1 AP spent, get a Perception roll to ask one simple question. The answer requires 1d10 AP to return and appropriate AP to relate.

Category 2

PSI Attribute	Cost	AP	Distance**	Tempus Momenti	Effect Duration
01 - 50	1	*	1cm/Turn	1d10 Turns	1d10-5 T
51 - 75	5		1m/Turn	1d10 Minutes	1d10 T
76 - 90	10		10m/Turn	1d10 Hours	1d10+5 T
91 - 99	20		100m/Turn	1d10 Days	2d10-5 T
00+	25		1,000m/Turn	1d10 Weeks	2d10 T
150+	30		10,000m/Turn	1d10 Months	2d10+5 T

Tempus Momenti is the time forward or back from the present moment in time.
Effect Duration is the time frame in the past surrounding the Tempus Momenti.

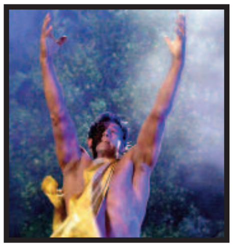
Category 3

PSI Attribute	Cost	AP	Distance**
01 - 50	1	*	0m/Turn
51 - 75	5		10cm/Turn
76 - 90	10		100cm/Turn
91 - 99	20		1m/Turn
00+	25		10m/Turn

Must hold the object or be in the room or location, free to move about. Greater power allows one to feel sensations as they approach the object or 'hotspot'.

** Distance is swappable with Duration.
See close for a long time, far for short time.

Telekinesis



Macrokinesis	Manipulation of super-millimeter objects
Microkinesis	Manipulation of sub-millimeter-to-molecular objects
Transmutation	The transmution of one object into another at the atomic level. The Telekinetic need not 'know' what makes a thing a thing, simply 'knowing' of an object brings it into natural existence.
Pyrokinesis	Creation and manipulation of Fire
Cryokinesis	Creation and manipulation of Ice/Cold
Electrokinesis	Creation and manipulation of Electricity
Psychoenergeia	Creation and manipulation of Energy/force fields
Psychokairos	Creation and manipulation of Weather
Flight	Manipulates the air around them to allow flight
Punch	Manipulates the air around them to form a 'fist'
Wall	Manipulates the air into an impenetrable barrier

A Telekinetic cannot be directly manipulated by another Telekinetic. They are each their own psionically immovable force no matter how much more powerful one or the other is. Nor can they combine their telekinetic powers to affect the same given object or achieve effects greater than they could alone.

That said, in terms of Kairosts, two 'could' create tornadoes in different areas and collide them for a larger effect. However, no two Kairosts could control the resultant tornado, which would immediately collapse. Nor could two affect the same tornado or weather patterns needed to create a greater tornado.

Similarly, the area of weather needed to generate one tornado or storm could be so vast that no two Kairosts could reasonably affect each other's manipulations. Two Kairosts could fight each other for control of one tornado, that's another matter for combat resolution.

Just as a Kairost could take flame generated by a pyrokinetist and turn that into a fire tornado, an Energeist could come along and contain all that might into a small force field which is then unleashed elsewhere with full fury. In this instance, while the Kairost may have dismissed control of that storm, the effect is still contained until unleashed where it will cause immediate damage and instantly dissipate thereafter.

The Fulcrum Point

Some gaming systems require the Telekinetic to be the fulcrum of and for the mass they move. This simple point creates game mechanisms that don't 'need' to be delved into unless the GM chooses to. Go for it.

To account for 'dramatic flair' and artistic interpretation of a dramatic TV series, the Fulcrum Point is mooted hereby.

Range

From Mitchell throwing switches to Charlie X rupturing a baffle plate light years away, GM determinations are required to establish range, costs, effects and strength over time and distance for your own campaign.

Side note: Apollo used Psychoenergeia, not Macrokinesis, to hold the Enterprise fast.

Kairos

PSI Attribute	Cost	AP	Area/Duration/Severity
01 - 50	01	***	100^2m /1d10 Mins/Cat 1
01 - 50	05		1000^2m /1d10 Mins/Cat 1
01 - 50	10		100^2m /1d10 Mins/Cat 2
01 - 50	15		$1,000^2$m /1d10 Mins/Cat 2
51 - 75	20		$10,000^2$m /1d10 Mins/Cat 3
76 - 90	25		$100,000^2$m /1d10 Mins/Cat 4
91 - 99	30		$1,000,000^2$m /1d10 Mins/Cat 5
00+	40		$10,000,000^2$m /1d10 Mins/Cat 6

Flight

PSI Attribute	Cost	AP	Alt x Lat/Duration
01 - 50	01	***	1m x 1m/Turn
01 - 50	05		10m x 10m/Turn
51 - 75	20		100m x 100m/Turn
76 - 90	25		1000m x 1000m/Turn
91 - 99	30		10000m x 10000m/Turn
00+	40		1000000m x 1000000m/Turn

Macrokinesis

PSI Attribute	Cost	AP	Mass/Duration
01 - 50	01	***	1g/Turn
01 - 50	05		1kg/Turn
01 - 50	10		10kg/Turn
01 - 50	15		100kg/Turn
51 - 75	20		250kg/Turn
76 - 90	25		500kg/Turn
91 - 99	30		1 metric ton/Turn
150+	40		10 metric ton/Turn
200+	50		100 metric ton/Turn
250+	60		1000 metric ton/Turn

Pyro, Cryo and Electro

PSI Attribute	Cost	AP	Damage per AP spent
01 - 50	1	1	1d10+1
51 - 75	5	1	2d10+5
76 - 90	10	1	3d10+10
91 - 99	15	1	4d10+15
00+	20	1	5d10+20
150+	30	1	10d10+30
200+	40	1	50d10+40
250+	50	1	100d10+50

Wall

PSI Attribute	Cost	AP	Area/Duration/Strength
01 - 50	01	1	$1m^3$/1turn/1d10+5
01 - 50	05	5	$1m^3$/10turn/2d10+10
51 - 75	20	10	$10m^3$/1turn/3d10+15
76 - 90	25	20	$10m^3$/10turn/4d10+20
91 - 99	30	25	$100m^3$/1turn/5d10+25
00+	40	30	$100m^3$/10turn/6d10+30
150+	50	40	$1000m^3$/10turn/7d10+30

*** These are all gestural powers in nature. AP costs are per GM determination.

Punch

AP per fisticuffs
PSI Cost per fisticuffs
STR + PSI = Bare-Hand Damage,
Consult Bare-hand damage chart

Microkinesis Another GM discretion power exclusive

PSI Attribute	Cost	AP	Effect
**	**	**	**

**This Psionic is another where,where does one begin to craft rules for this? On the fly, where else? Good luck! We're all counting on you!

Energeia Another GM discretion exclusive

PSI Attribute	Cost	AP	Effect
*	*	*	1d10 m^{3*}

*This Psionic is their own tractor/pressor beam emitter, force-field detention center and so much more. Sue Storm, late of NYC, NY, is likely the best example of this power. Any shape to fulfill any function can be wrought. Where do you begin to craft rules for this? On the fly, where else? Good luck! We're all counting on you!

Transmutation

PSI Attribute	Cost	AP	Volume
01 - 50	01	1	1kg m^3
51 - 75	20	5	10kg m^3
76 - 90	25	10	100kg m^3
91 - 99	30	15	1000kg m^3
00+	40	20	10000kg m^3
150+	50	20	100000kg m^3

Telepathy

Out of all the five disciplines, telepathy is the most dangerous to all as it can be difficult to tell where the telepath ends and others begin. The telepath becomes ever more susceptible to the thoughts of those around them without mental guards.

Similarly, the unguarded telepath can unwittingly leak their thoughts to other minds, causing severe-to-insane outbursts and actions by any amount of people around them, Sarek of Vulcan. Even Vulcans engaged in mind links must be very careful to disengage properly lest the personalities not sort properly and psychic or personality damage occur to one or more participants.

For a well done Telepath, see Rayna. No, not Reena Kapec; ***Rayna,*** Cleopatra 2525. "If you see her, you may already be dead." The Killface Guy from that streaming Jessica Show years back was well executed, in more ways than one as well.

Unlike Telekins, Telepaths *can* combine their powers -or fight each other inside your brain instead of their own, soon an obliterated wasteland. Lucky you.

Telepathica Automata, ability to control machinery and computers. From simple mechanisms to starbase computer banks, all are susceptible to telepathic control. Automata takes time and can be 'fought' by ship's personnel, for example. For starship systems, roll Critical Hit Tables for systems affected and the order. Every GM determined interval, another system will fall to the Telepath.

Once all systems are co-opted, the crew is shut out.

Telepathica Fauna, ability to talk with the animals, learn their languages down to macrobiologies. The Fauna Psionica must be careful not to lose control and become the animal communicated with. See Doug Trumbull's film, "Brainstorm" for a glimpse and speculative thoughts of what could happen.

Telepathica Musica, the Lorelei Signal, the Siren Song. Typically affects the calming and pleasure centers of the brain lulling them to tranquil bliss with the mind open to all suggestion by this Telepath. Musica is a ranged, area-effect ensnaring all minds hearing it and usually involves a sexual attraction. The non-attracted genders will hear nothing at all, mentally or aurally.

While nuanced reasonings on persons susceptible to the effect are exclusively player-based, it is the GM wields the baton and conducts the symphony. No other.

Telepathica Sentiens, ability to communicate with sapient and higher functioning sentient minds of similar order. Sentiens are the most dangerous of all. Sentiens can co-opt any sentient mind using numerous methods and powers to do so. The target mind can roll saves to avoid the psionic effects, but near always, the Telepath wins. Eventually.

Range

The Talosians suggest up to many light years distance is possible for the strongest of their number. Orbital should be 'easy' for moderate strength Telepaths, the hemisphere a little bit less with the horizon and local proximity for the weakest Telepaths.

01 - 10	Proximity
11 - 25	Horizon
26 - 50	Hemisphere
51 - 75	Orbital
76 - 90	Planetary
91 - 99	Solar
00 - 200	Extra-solar
201+	Intra-galactic
500+	Inter-galactic

Telepathica Musica

PSI Attribute	Cost	AP	Effect Duration	Target PSI Vector Die Mod per Attempt, per Singer, per Turn
01 - 50	1	*	1d10 Turns	+1d10%
01 - 50	5		1d10 Minutes	+2d10%
01 - 50	10		1d10 Hours	+3d10%
51 - 75	20		1d10 Days	+4d10%
76 - 90	25		1d10 Weeks	+5d10%
91 - 99	30		1d10 Months	+6d10%
00+	40		1d10 Years	+7d10%
150+	50		10d10 Years	+8d10%
200+	60		1d10 Decades	+9d10%
250+	70		10d10 Decades	+10d10%

* All AP are expended in the song. The song ends with the target mind(s) ensnared.

Telepathica Automata

PSI Attribute	Cost	AP	Machine Type
01 - 50	1	**	Simple Mechanical
01 - 50	5		Complex Mechanical
01 - 50	10		Powered
51 - 75	20		Computers
76 - 90	25		Artificial Intelligence
91 - 99	30		Sentient Technology
00+	40		

*** Once control is established, AP costs are per physical AP costs EXCEPT the Telepath multiplies their DEX by 1/10 PSI Attribute rd plus 5 for their Automata AP rating!

(DEX (1/10 PSI Att, rd))+5 = Automata AP

Telepathica Fauna

PSI Attribute	Cost	AP	Mentus
01 - 50	1	**	Sapients
01 - 50	5		Sentients
01 - 50	10		Mammal
51 - 75	20		Avian
76 - 90	25		Reptile
91 - 99	30		Insect
00+	40		Microbiological Borderline

** See chart following

Telepathica Sentiens

PSI Attribute	Cost	AP	Mentus
01 - 50	1	**	Sapients
01 - 50	5		Sentients
01 - 50	10		Sentients
51 - 75	20		Mammal
76 - 90	25		Artificial INT
91 - 99	30		Sentient Tech
00+	40		

** See chart following

While no list can be complete, here are some known and suspected mental powers associated with Telepaths of all types.

ASSAULT Uses Subjugator's or Target's anguish as a weapon.

BIND Binds a target helpless.

BUTTRESS Uses one psyche to hold firm another in crisis while taking that crisis upon oneself for a time.

CHARM To enamor a target into a false sense of complete and total friendship, devotion and affinity.

CONFUSE Causes the target to forget what they are doing, drop everything and wander off in a complete daze.

DAEMON A control directive is planted within the target's mind that, when triggered, causes the target to perform a sequence or narrative of actions of the subjugator's design. PSI save on implant only, no further resistance unless for some GM-determined mitigation. Conflicting commands will overwhelm the target into STUN whereupon all instructions will be lost.

DEADFALL A bottomless pit for the mind to fall forever. The difference between this and Fractal Zoom is that there is an up, down, side, you and not-you.

DREDGE Pulls every worst memory and those forgotten to hammer the target.

FRACTAL ZOOM Sends a target into an endless spiral from which there is no in or out, up or down, no start or end, nor anything that is not not-you.

HIVE Similar to Puppet but with multiple targets, mass communication and coordinated actions, like a shool of fish or mass of zombies honing in on your brain stem.

IMMERSION Sends a target into a total fantasy at the whim of the subjugator who will usually draw upon places and people from the target's mind, whether real or imagined, creating vivid scenarios to lead, trick or otherwise direct target to conclude the scenario per the subjugator's desire. A target cannot be forced to do anything they don't want, but the situations created can push the target to such ends.

KERTRATS An endless horizon on an endless gray plain in all directions with the Sun always ahead and about to set with you wandering forever towards it.

MAZE A labyrinth to get lost in

MIND FUSION The complete persona sharing of the Telepath and any being; every memory, every thought, every moment of each other's lives become one. On separation, each will retain the best of the other, changing their lives forever. Botched, separation, may be messy.

MIND MELD This allows several minds to share either Mind Fusion or Mind Touch.

MIND TOUCH Simple thought transference between the Telepath and any Being. More a sharing of state of mind about the moment or a particular subject than in-depth discussion depending on how long the conversation goes for. Despite duration, Mind Touch never delves to the level of Mind Fusion.

MIRRORS Creates one or more mental doppelgangers of the target or subjugator. As they are manifestations of that portion of the subconscious mind that the subjugator draws into hallucinatory forms, each can then perform on their own as individuals. ("There is no Sanctuary.")

PETRIFY Immobilizes a target who may or may not be aware of their condition.

POSSESSION Hijack and inhabit a target's body, ultimately destroying the original persona for the subjugator's.

PSI BURST A burst of mentality that overwhelms the neurological functioning of the target mind(s) causing them to fall unconscious.

PSI SCREAM An area-effect PSI Burst.

PSYCHO-BOMB A mental burst so devesatating it physically ruptures the cellular structure of the brain, beginning with the frontal cortex to the stem.

PUPPET A subjugator attempts to fully co-opt the mind of another to carry out the subjugator's will. Such a puppet can be forced against their will to do what they otherwise would not, but do get a PSI save per attempt to resist and this costs additional PSI points for the subjugator as control must be actively maintained. Resistance is never futile.

SENSE LIFE This applies to all Telepaths, not only Telepathica Fauna, down to macrobial life. Amoebic, bacterio, viral and all similar orders of life are not detectable by any Telepath known of except on large scales such as a sea filled with microbial life.

SENSE INTENT Merely the friendly or hostile, curious or shuttered, peaceful or killing frame-of-mind, not the finer emotional underpinnings behind such feelings.

SHIELD Draws on personal strengths to build protections and barriers vs. attack. Absorbs psionic point damage. Can be extended to protect other minds.

STUN Affected target will drop all, reeling in place and is mentally overwhelmed.

SUGGEST From simple one-word phrases such as "Sleep" to complex instructions with conditionals that may or may not be accurately understood and carried out. Conflicting commands will overwhelm the target into STUN whereupon all instructions will be lost. Where Daemon plants an instruction for later, SUGGEST is in-the-moment.

SURFACE Pulls some lost and relevant memory or information to the mind's fore. Target may not have ever been consciously aware of the memory itself.

Telepathica Sentiens

PSI Attribute	Cost	Powers
01 - 50	1	1
01 - 50	5	2
01 - 50	10	3
51 - 75	20	4
76 - 00	25	5

LEVEL 1	AP COST	EFFECT
BIND	1	Fall to ground as if rope-bound. Squirmably free w/PSI Vector rolls.
CHARM	1	A quick smile and you are under. Credits for your pal? Sure!
CONFUSE	0	Wander off not knowing what's going on for 1d10 per 1/10 Subjugator's PSI Attribute, round down Action Points.
DEADFALL	0	Pit opens below your feet, maybe you can slow your fall by hitting the sides and PSI Vector rolls. GM's call.
KERTRATS	1	You could be here awhile.
SENSE LIFE	1d10+5	Range is GM Discretion, consult the Clairs.
SENSE INTENT	1d10/3 rd	Range is GM Discretion, consult the Clairs.
SHIELD	1	Requires no FOCUS, absorbs add'l 1/2 Pool rating in dmg.
STUN	0	Rooted to the spot with head reeling for 1/10 Subjugator's PSI Attribute, round down Action Points.
SURFACE	1d10+	Depends on complexity, the 'Short-Sentence' AP rule.

LEVEL 2	AP COST	EFFECT
ASSAULT	0	1d10 per 1/5 Subj PSI ATT rd + UNC save, dice +50.
DREDGE	1d10+5	1d10 AP lost fighting your inner demons.
MAZE	1d10/3 rd	You went left and your brain just went right and don't know where you are for 1d10 Turns.
MIND TOUCH	1	Per 5 thoughts/questions, FOCUS/Turn to maintain.
PETRIFY	1d10/3 rd	Frozen motionless for 1d10 Turns.
PSI BURST	0	Anyone got a mop? Knocked UNC for 1d10T+ 1T/(1/10 PSI ATT rd)
SUGGEST	1+	Depends on complexity, the 'Short-Sentence' AP rule.

LEVEL 3	AP COST	EFFECT
DAEMON	1d10+	Depends on complexity, the 'Short-Sentence' AP rule.
FRACTAL ZOOM	0	You lock eyes and now falling into yourself next 10d10 Turns.
IMMERSION	1d10/3 rd	FOCUS/Turn to maintain.
MIND FUSION	1+	Per ten thoughts/questions, FOCUS/Turn to maintain. Process requires 1d10/Turns to start/stop.
PSI SCREAM	1d10/3 rd	Roll UNC + 1/2 Subjugator's PSI Attribute for 1d10 per 1/10 Subjugator's PSI Attribute.

LEVEL 4	AP COST	EFFECT
BUTTRESS	10d10	Baby-sitters are your best friends.
HIVE	1d10	Welcome to the Doll House.
MIND MELD	10d10+*n*	FOCUS/Turn to maintain.
MIRRORS	1	"There is no Sanctuary." "All frozen."
PSYCHO-BOMB	1d10/3 rd	Anyone got a mop? Knocked UNC for 1d10T+ 1T/(1/10 PSI ATT rd)
PUPPET	1d10+5	FOCUS/Turn to maintain.

LEVEL 5	AP COST	EFFECT
POSSESSION	ALL	Long-term process of mental subversion, minutes, days, weeks...

PSI DICE DAMAGE

All Psionic interactions cause fatigue or physical harm. All 'damage' first comes off the PSI Pool, then the PSI Vector and finally the PSI Attribute proper until each is zero. At that point, brain death is fact.

Each power does 1d10 per Level per interaction to the Target's PSI, no matter the duration of each interaction. A Vulcan mind meld may last minutes or hours, but still does 4d10 in fatigue that must be rested to recover, whereas Psycho Bomb also does 4d10, but this is physical damage to the END as well as the PSI.

GM should use discretion on how damage is applied and the circumstances.

Psionic Activity

The easiest type of communication is the one-way transfer of a basic concept or feeling, such as hunger, fear, uneasiness, or relaxation. More difficult is the one-way transfer of complicated concepts or feelings and short messages. Two-way conversation is even harder, but a short telepathic link can often be the equivalent of an hour-long conversation with visual aids. Deeper thought- or memory-sharing is increasingly more difficult, progressing through a two-way disclosure of all surface thoughts, feelings, and intentions, total exchange of memory and thoughts, and into true mind fusion, in which the self is shared completely. The modifiers increase as the communication becomes more complete. Mind melds may occur at any level of communication. The modifier for each additional link is half that for the first contact.

			Die Mod
Contact Type			
	Mind touch, one-way		
		Basic concept or feeling	0
		Short message, complex concept	−10
	Mind touch, two-way		
		Telepathic conversation	−20
		Sharing of thoughts and feelings	−30
		Total thought exchange	−40
		Modification of subject's memory	−20
	Mind fusion		−50
	Mind meld, per additional person		1.5x modifier
Subject			
	Intelligence		
		Intelligent Humanoid	+10
		Intelligent non-Humanoid	0
		Semi-intelligent creature	−10
		Unintelligent creature or animal	−25
		Unknown creature type	−20
	State of mind		
		Willing telepath	+ half PSI of less skilled
		Willing non-telepath	+25
		Unresisting or unaware	+10
		Aware and consciously resisting	− half PSI of subject
		Friendly or mentally sympathetic	+10
		Previously mind-touched	+10
Conditions			
	Surroundings		
		Total quiet, no one else present	+15
		Comfortable, familiar location	+10
		Touching subject	+20
		Subject in sight, not touched	0
		Subject distant	−10 or more

Psionics have not been playtested!

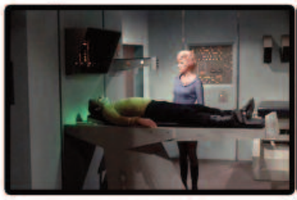
To create all this, I sought to apply game precedent to the show's psionic portrayals. There is no chance the various writer's or production had a cohesive psionic system in mind. Yet, here it is with bonuses.

Psionic Die Modifiers in General

I've thrown a few here and there throughout these pages. It gets to the point where there are so many contingencies that the rest will have to go to the individual GM. The original Vulcan template next to this column is a guide.

Enterprise Incident. I submit the Vulcan death grip is actually a form of Suspend Animation.

When Chapel sees Kirk open his eyes in sick bay and close them, the psionic effect has just broken and he has slipped into normal unconsciousness.



McCoy then uses a standard stimulant to bring Kirk out of a standard state of unconsciousness. McCoy must have known that there was nothing he could do until Kirk hit that psionic threshold first.

I didn't write that exact revivication scenario into the ruleset, but you can see how it would function when applied in-game.

As I began the psionics, I thought perhaps 3 or 4 sides, 2 or 3 pages of quick rulings and notes. What? ~23 sides, 13 pages? Pffhhh!

There are SO many psionic examples in the show that you're tripping over them all the time and maybe never quite see them as part of the cohesive psionic whole or exactly for the psionic activities they are. Funny that about *Psionics*, eh? LOL.

Teleportation

Teleportation is an instantaneous effect. The Teleported being in another place instantly from being elsewhere just before.

Seseportation, teleports the self
Apportation, teleports objects
Projective teleports another being

Relative Velocities, Disparate Loci

For in-game purposes, issues regarding relative velocities between disparate latitudes, longitudes and altitudes, teleportation shall LOOK OVER THERE! WHAT *was* that? **Did you see?** I can hardly believe it, either! Gotta catch my breath!

That certainly doesn't happen everyday.

Anyhow, a Psionic may Teleport themselves and their immediate possessions a given distance based on their PSI Attribute and point costs. In extremis, a Psionic could teleport up to one other person of their mass or less. If failed, all costs incurred and no teleport initiation.

The Act of Teleportation

Unlike Transporters, the act of Teleportation is 100% safe in all circumstances. Teleportation either works or doesn't.

When teleporting, make a LUC roll. SUCCESS equals successful 'port. If FAIL, roll LUC again with previous fail margin as a modifier against. SUCCESS = 1d10(*time/distance*) from intent. FAIL = no initiation, leaving the 'porter in situ. but always on a surface. A CRITICAL FAIL means the Teleport didn't initiate or is very freaking far off-compass.

PSI Attribute	Cost	Distance
01 - 50	1	100d10 m
01 - 50	5	1d10 km
01 - 50	10	10d10 km
51 - 75	20	100d10 km
76 - 90	25	Planetary
90 - 99	30	Lunar
00+	40	Solar
200+	??	Interstellar

A Psionic must have the minimum rating to achieve the desired distance. A rating of PSI 50 can never hope to Teleport to 101km away. One more PSI point and it would have been 1,001km.

STRAIN one-time for double the cost, 3x effectiveness

Either way, no harm from the act. Teleport on to a slippery road, precarious outcrop, crumbling cliff face, that's a whole other scenario for the Psionic to cope with immediately on arrival.

Teleportation can occur between ships in a warp field provided they are going the same'ish speed. Otherwise, the Psionic would have to carefully time their attempt to avoid ending up in space. They may envision their jump correctly, that doesn't mean the place will be there when they bamf in. At least they will not wind up inside a wall. The wrong side can be just as bad, though.

The Psionic need not have been to the place they are teleporting to, but they must know what it looks like and as best an approximation to where it is in a given volume of space. Teleporting sight-unseen to a new location costs the points, but teleport may not initiate.

Fail Margins

1% Fail = 1 Distance-Unit off. For planetary scales, adjust to suit. If one fails to teleport to the moon, one still lands on the moon, just very far away, maybe the other side.

Conditions	Die Mods
Self/other/object	+/-0
+01% mass	+0.5
+10%mass	+05
+20% mass	+10
+50% mass	+25
+100%mass	+50
Relative motion, little	+10
some	+20
lots	+30
Never seen	+50
Open area	-10
Common Design	-15
Familiar	-25
"Home"	-50

From the original texts

> **VULCAN PAIN REDUCTION**
>
> It is impossible to provide a full set of rules for this action, and so gamemasters should judge it according to whatever seems reasonable. It is important to note that the technique reduces only *pain* and has no effect on the injury itself; thus its use might make the injury worse, because, after all, pain is one of the ways the body signals that it is in danger. This technique might be employed to prevent a character from having to make a Saving Roll against his MAX OP END when he has taken temporary or wound damage and his CURR OP END has fallen below the INACT SAVE of 20.

Lolz

In modern Vulcan society, the use of telepathic contact to pry into another's mind is unthinkable. Such contact is intimate and somewhat embarrassing. Mind contact is not practiced for trivial reasons. There have been attempts to teach these ancient disciplines to members of other races, and some partial successes have been noted.

Rather than specify which particular powers Vulcans have or don't, they are simply listed in this framework as having Telepathica Sentiens, Clair and Awareness with *potential* access to some, other or all the powers thereof.

That does not mean they practice them. Nor does it mean they don't or haven't ever. A power such as Supersize perhaps made no logical sense to pursue, but perhaps helps to explain the Infinite Vulcan as a racial memory evoked by the cloning process undergone.

All it really means is that these powers weren't ever seen in the show. It's not like we knew all Spock's powers from episode 1. We didn't learn of the Katra or Fal-tor-pan until ST III, afterall.

It's likely the Vulcans have slews of abilities never hinted at ~BECAUSE~ they DON'T talk about it. Ever. Psi Club.

Vulcans have displayed

Telepathy	E.S.P.	Awareness	
Sentiens	Voyance	Self-healing	
	Premon	Pain Reduction	
		Suspend Anim	
		Enh	**STR**
			END
			INT
			DEX
			CHA
			COOL

NO Vulcan worth their green, pointy ears would ever speak of psionics to anyone ever, barely even other Vulcans, even then!

Spock's big mouth is a very unique exception to this rule. The general populace know Vulcans, in particular, have some kind of mind power, but that's about the extant. GM's should take painful cares in all cases.

GM shall need tight control over the development of any 'new' Vulcanian powers within the framework of their own campaign and the greater psionic rigamarole as humbly put forth herein.

One could easily see a Vulcanian Telepathica Fauna instead of Sentiens or have an offbeat Awareness or Clair.

We did wind up with Sybok primed and loaded into the canon, afterall. How much worse can you do? Sorry! I take that back! (lolz)

So where are the character dice tables, yo?

Face it, if you were meant to be psionic, you wouldn't need to be asking that. After all, you'd already know.

For the non-psionic of us out there, I'll spell it out flat. There is NO GM alive worth their dice sack that's going to let players near this system without especial and highly particular cause, direction and scrupulous oversight. Charlie Evans, Tommy Starnes. The list goes on and it's a bad one.

So while the players are unlikely to ever have need of, much less their character's ever knowing anything of any of this, the fact is that because of the Charlie Evans, Tommy Starnes, Gary Mitchells and the long list behind them, the GM must have a comprehensive grasp on all of it from all sides.

The reigning Psionic Champeens Award must go to Starfleet's
Lt. Gary Mitchell and Dr. Elizabeth Dehner
for
Most Fearsome Overall Command and Display
of
Psionic Capabilities Witnessed in the Series
if not sci-fi at large

As it looks like Elizabeth would have caught up to Gary soon enough in the powers-department, we'll express their powers as a mutual trajectory.

Given the nature of their exposure and growth rate, Sulu's estimation of their power curve was likely correct. So while Gary had few powers to start and weakly, they expanded and each grew in potency.

It seems likely that had they not been stopped, they both might have checked off every power in every discipline there is. That is, if their brains didn't fry out at any moment.

Gary and Elizabeth displayed

Telepathy
***Automata**
Fauna
Musica
***Sentiens**

Telekinesis
***Macro**
Micro
Pyro
Cryo
***Electro**
***Energeia**
***Kairos**
***Transmute**
Flight
Punch
Wall

Teleportation
Suse
Apport
Projective

* Liz got to Kirk awful fast and not alot of apparent effort for it. I'll give her 1st demo of a new power here. Gary soon followed up similarly to surprise Kirk 'out of nowhere'.

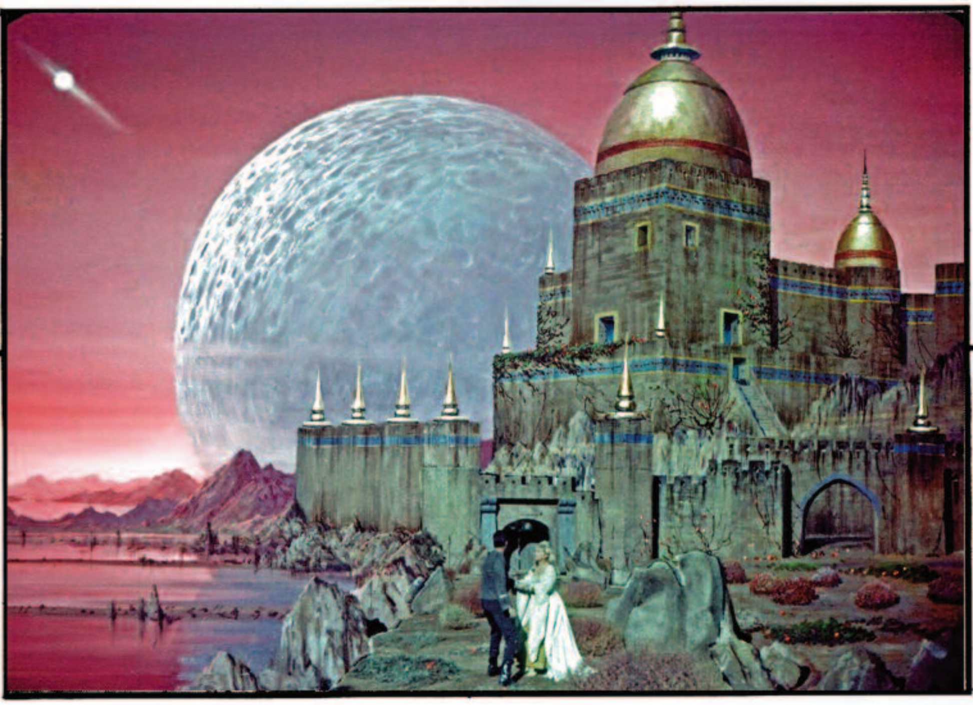
E.S.P.
***Voyance**
***Audience**
Senti
Scence
Cogniz
Gusto
Precog
Retrocog
Mortuscog
***Premon**
Psychom

Awareness
***Armor**
Empath
***Enh** **STR**
  END
  INT
  DEX
  CHA
  COOL
Invisibility
Levitation
Metamorph
Pain Reduction
Speed
Supersize
***Suspend Anim**

Planetside Adventures

A LANDING PARTY is any group sent out from a starship for exploration, diplomatic negotiations, first contact, or other official purpose. The responsibility for choosing a landing party usually falls to the captain, though he will respect the advice of subordinate officers in their specialized departments. The crewmen assigned to a landing party depends on the size of ship and type of mission. Presented in this section are guidelines for selecting and equipping landing parties from Constitution-class starships such as the U.S.S. Enterprise. These guidelines can be adapted, using imagination and common sense, for use on other vessels.

A basic EXPLORATION TEAM would be sent down to make the first survey of a new planet. This team would consist of at least one sciences specialist each in botany, zoology, and geology, two security specialists, and a medical officer. Often, if the survey were important enough or especially tricky, the science officer would fill the position of one of the sciences specialists, and act as team commander. If not, the senior sciences specialist present is in command.



The sciences specialists will be equipped with science tricorders, and the medical officer with a medical tricorder and small medikit. All but the medical officer will carry Phaser I. If the initial sensor scans indicate the presence of larger animals that might be dangerous, the chief of security or the captain may issue the security specialists Phaser II instead.

A FIRST CONTACT TEAM will be beamed down to an unexplored planet where a sentient civilization is determined to be present. The Prime Directive calls for direct contact to be avoided with civilizations below a technological and intellectual level where they can handle the idea of "men from the stars". In such a case, the team would be disguised as natives, where such disguise is possible, and equipped with universal translators and no weapon larger than Phaser I.

The Prime Directive expressly forbids providing natives with technology beyond what they can develop themselves. This prohibition has only been broken where another starfaring culture has already disrupted the cultural ecology. In such a case, a starship captain has wide discretionary powers to restore a cultural balance if possible. The captain will have to face a tough hearing on his actions later and will have to justify them to a Star Fleet Review Board.

A diplomatic contact landing party would be sent down when making first contact with a civilization sufficiently advanced to be approached about the existence of the Federation. Such a party is almost always headed by the ship's ranking officer, the captain. Since star vessels operate so far out, often weeks from a starbase by subspace radio, the captain of a large exploration vessel (like the U.S.S. Enterprise) is empowered to act as a Federation ambassador for purposes of establishing friendly relations with a new culture.

The other members of a diplomatic contact party would be selected based on the situation as observed. Weapons larger than Phaser 1 would be avoided on such a landing party, though 1 to 3 security specialists would be taken along. At least one sciences representative, often the Science Officer, would be assigned to the party as well. Other specialists might include sciences specialists (if the planet in question is important due to some scientific data to be gathered there), a medical officer, or members of the command division (helm or navigation). These last would come along as observers, learning the fine art of diplomacy by assisting the captain. On such a party, science personnel would not usually carry tricorders, nor would medical personnel. A tricorder (probably sciences) would be carried by a yeoman or member of the command division observing, for recording diplomatic negotiations, making supplemental log entries, etc.

Other types of landing parties would be formed by the captain based on the needs of the moment. It would be rare for both Captain and First Officer to leave the ship at the same time, unless the presence of both was absolutely necessary. The Captain would not beam down for a routine survey party, nor would any department head, unless something were unusual or important about the mission. The Gamemaster should encourage the players to be somewhat realistic about landing party composition. Gamemasters should definitely not allow the captain and all bridge personnel to beam down for every landing party, armed to the teeth and ready for anything. If they do this too often, after all, there's always the chance something important could happen on board while everyone was planetside! Keep player-characters involved in the action but every player character doesn't have to beam down for every landing party. Set up game situations cleverly, so everyone has a chance to do something, but not necessarily so everyone has to beam down.

STRANGE NEW WORLDS

Much of the action and adventure in STAR TREK took place on the Class "M" planet investigated by the U.S.S. Enterprise on it's five-year mission. Gamemasters will want to create a steady stream of "strange new worlds" to explore, and the "new life and new civilizations" to populate them.

Of course, there is no substitute for the human imagination. The designers recommend that gamemasters, like the writers who shaped the STAR TREK universe in the first place, create planets, animals and sentient races to suit (and delight) his campaign and the players involved. Space, and its variety, are infinite–**STAR TREK: The Role-Playing Game** should be a celebration of this variety.

But even the most creative gamemaster occasionally needs a push in the right direction and some guidance. Also, players have a tendency to surprise you, going in directions you don't expect and exploring places you don't anticipate! For those times, simple systems are provided to allow gamemasters to quickly generate the important data about class "M" planets, and the alien animals and sentient races that might be found there. Gamemasters can then take this basic data and expand on it to flesh out the campaign.

Only the class "M" planets are covered by this system, since those are the planets the U.S.S. Enterprise and her sister ships were assigned to explore. Class "M" planets are those which are capable of sustaining most Federation species (carbon-based oxygen-breathers) without major life support equipment. Occasionally, ships call at other worlds than Class "M", and some successful colonies have even been established, though they require major life support systems. Such worlds, however, are selected for their strategic location, not their hospitable climate. If a gamemaster needs a methane-atmosphere world or a gas giant for some reason, by all means create one! The planetary generation system, however, is designed for use with class "M" worlds only.

Class "M" covers a lot of ground, however, as it includes Vulcan, Alfa 177 (*The Enemy Within*), the volcanic satellite of planet Cepheus (*The Terratin Incident*), and probably even Rigel XII (*Mudd's Women*). Class "M" planets aren't always all that hospitable.

And not so strange worlds...

Class M worlds seem bountiful enough out there. That's fine. All sorts of new and exotic places and peoples to meet and make friends with.

However, the amount of exact and near-match Earths out there is, fascinating, to say the least.

Does this pattern indicate plentiful examples of exact and near-match Andors, Tellars, Vulcans and all the others out there that are matches down to period architecture, historical eras in time, societal frames of mind, personalities and more? If so, wowww.

Planetary Pandemics

There are more than several episodes dealing with raging plagues both natural and scientifically-created. Information is key and localizing the infected immediately is the most paramount issue to face.

For evidence, ask the crew of the USS Exeter and the Enterprise landing parties from Miri, Deadly Years, Sulu when he's not swashbuckling, "a planet" in need of Zenite, the entire crew during Requiem for Methuselah and not to forget the Scalosians or Kalandans. To flip the tables, see The Immunity Syndrome.

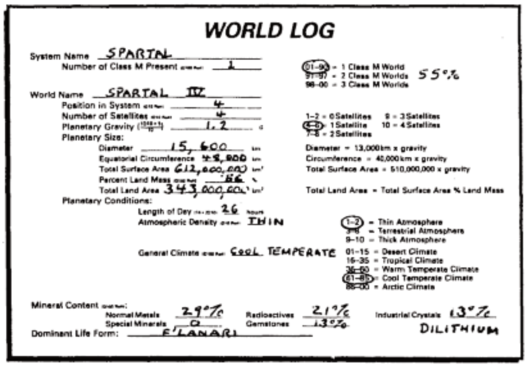
STRANGE NEW WORLDS

Only Class M planets are covered by this system, because those are the planets that Star Fleet's exploration ships are assigned to explore. Class M planets have a silicate and water surface like that of Earth, an oxidizing atmosphere like air, and geologic activity. They are planets capable of sustaining most Federation species (carbonbased oxygen-breathers) without major life-support equipment. Occasionally, ships call at other than Class M worlds, and some successful colonies have even been established on these worlds; but such worlds are selected for their strategic location. Class M planets come in a wide variety, and they all are not as hospital as Terra (Earth).

This system uses dice rolls to generate the planetary data, but these dice rolls should be used only to spark a gamemaster's imagination or to give a push in one direction or another. The planets generated using this system, which is purely random, may not conform to accepted scientific principles. Gamemasters should feel free to pick and choose data for planets, keeping in mind that the system provides a guideline to the relative chances for each planetary attribute and does not guarantee *overall* acceptability.

WORLD LOG

The *World Log* shown in the illustration should be used to record the information about each world as it is created. Permission is granted for players and gamemasters to photocopy this form for their personal use. The world design system follows this log, with each step adding new information to it. An example of this log has been provided, with all of the information filled in for the world Spartal IV. After each step in the process is explained in the text, the appropriate information will be generated for this example; this information is shown shaded in the text.



WORLD LOG

System Name SPARTAL
Number of Class M Present 1
[✓ 01-90] = 1 Class M World
91-97 = 2 Class M Worlds 55%
98-00 = 3 Class M Worlds

World Name SPARTAL IV
Position in System 4
Number of Satellites 4
Planetary Gravity 1.2 G
1-2 = 0 Satellites
[✓ 4-6] = 1 Satellite
7-8 = 2 Satellites
9 = 3 Satellites
10 = 4 Satellites

Planetary Size:
Diameter 15,600 km
Equatorial Circumference 48,000 km
Total Surface Area 612,000,000 km²
Percent Land Mass 56 %
Total Land Area 343,000,000 km²
Diameter = 13,000km x gravity
Circumference = 40,000km x gravity
Total Surface Area = 510,000,000 x gravity
Total Land Area = Total Surface Area % Land Mass

Planetary Conditions:
Length of Day 26 hours
Atmospheric Density THIN
[✓ 1-2] = Thin Atmosphere
3-8 = Terrestrial Atmosphere
9-10 = Thick Atmosphere
General Climate COOL TEMPERATE
01-15 = Desert Climate
16-35 = Tropical Climate
36-60 = Warm Temperate Climate
[✓ 61-85] = Cool Temperate Climate
86-00 = Arctic Climate

Mineral Content:
Normal Metals 29%
Special Minerals 0
Radioactives 21%
Gemstones 13%
Industrial Crystals 13% DILITHIUM
Dominant Life Form: E'LANARI

DESIGNING CLASS M PLANETS

Follow this procedure step-by-step, filling out the *World Log* as each piece of information is generated.'

Number Of Class M Worlds Present

Roll percentile dice and consult the table below to determine if there are 1, 2, or 3 Class M planets in the system. Four or more Class M worlds in one system would be extremely rare, but possible if the gamemaster chooses.

NUMBER OF CLASS M PLANETS IN SYSTEM

Dice Roll	*Number Of Worlds*
01-90	1
91-97	2
98-00	3

Position In System

Roll 1D10 to determine the number of the planet in the system. It is usual to use Roman numerals to number the planets outward from the star. If the system has more than one Class M planet, roll the die the appropriate number of times, re-rolling ties.

POSITION IN SYSTEM =1010

Number Of Satellites

Roll 1D10 to determine the number of natural satellites, from 1 to 4. Roll percentile dice to see if the satellite is a Class M itself. If the roll is 01, then this is the case; generate its data just like a separate planet.

NUMBER OF SATELLITES

Die Roll	*Number Of Satellites*
1-3	0
4-6	1
7-8	2
9	3

Planetary Gravity

Roll 1D10 to determine planetary gravity for the Class M world. The gravity is determined by adding 5 to the die roll and dividing the total by 10, without rounding the result. This gives a resultant gravity of anywhere from 0.6 G to 1.5 G. (1G = Earth gravity.) Planets with greater or lesser gravity than this do not qualify as Class M worlds.

When characters land on high-gravity worlds, those who are not used to the added gravity should make fatigue END rolls more often than normal because of the extra stress. Skill Rolls likely would be required for delicate work by such characters if they failed a Saving Roll against the average of DEX and STR. When characters land on low-gravity worlds, most will need to make DEX Saving Rolls more often than normal, but they may not become fatigued as quickly. In either case, the longer a character is on the world, the less the gravity difference will affect him.

PLANETARYGRAVITY=(5+1D10)/10

Planetary Size

Planetary size is not often a factor in play, and so no system for approximating size is provided. Assume that the planet has a density identical to that of Earth, and so its gravity would indicate its size relative to that of Earth. To do this, multiply Earth's planetary size, given below, by the gravity factor just rolled to get the size of the new Class M world.

EARTH PLANETARY SIZE

(approximate)

Diameter: 13,000 km (8,000 miles)
Equatorial Circumference: 40,000 km (25,000 miles)
Total Surface Area: 510,000,000 sq. km
1196,940,000 sq. miles)

Land Area

To determine the percent of the surface which is land, as opposed to water, roll percentile dice. The roll indicates the percent of surface land. A result of 01 means there is 1% land surface, probably in the form of small islands. A result of 00 means 100% land, probably as desert with almost no free-standing water. To find the amount of land in square kilometers, multiply the total surface area by the dice roll and divide by 100.

PERCENT LAND AREA = 0100

Planetary Rotation

Planetary rotation time, in hours, is determined by rolling 2D10. Add the rolls together and add 14 to the sum. This generates a time between 16 and 35 hours as the length of one local day.

This tells nothing about the number of daylight hours, merely the approximate number of hours between midnight (or any other time) one day and the same time on the following day. To find out how many daylight hours, assume the world is like earth. About half of the hours will be spent in daylight, and half spent in night. Use the current season on Earth as the season on the world; in winter, the night will be longer and in summer it will be shorter than half the total day. The length of the local day (or the number of hours of daylight) could be important in some planetary scenarios.

LENGTH OF DAY - 14 + 2D10 HOURS

Atmospheric Density

Both thin and thick atmospheres are breathable, but they may cause fatigue over longer periods of time. If no special measures are taken, such as Tri-Ox injections for thin atmospheres or breathing masks for thick atmospheres, all characters except Vulcans and Tellarites must make END Saving Rolls every two hours. These Saving Rolls, and any others necessary (such as for fatigue) will be made with a modifier of +20 END. Vulcans and Tellarites are used to thin atmospheres and require no extra or modified saving throws for thin or normal atmospheres.

To determine the atmospheric density of the planet, whether it is normal (like that of Earth), thick, or thin, roll 1D10 and consult the following table.

ATMOSPHERIC DENSITY

Die Roll	*Atmospheric Density*
1-2	Thin
3-8	Terrestrial
9-10	Thick

General Climate

To determine the planet's general climate, whether it is temperate, tropical, desert, or arctic, roll percentile dice and consult the following table. The climate is only a general description. An arctic planet will have cool temperate zones, and a tropical planet may have warm temperate areas. Though Earth falls in the cool temperate range, it has climates in all the classes on the table.

The gamemaster should not be bound to the die rolls in this section, and random rolls here must be tempered with common sense. For example, a planet with less than 5% land area would be unlikely to qualify as a desert planet. The gamemaster is strongly urged to use this table only as a guideline that indicates a general direction. Feel free to substitute imagination for dice rolls at any time!

GENERAL CLIMATE

Die Roll	*Climate*
01-15	*Desert*
16-35	*Tropical*
36-60	*Warm Temperate*
61-85	*Cool Temperate*
86-00	*Arctic*

Mineral Content

The following optional system is used to determine the mineral content of the planet. To eliminate the trouble of mapping each individual vein of ore, percentile dice are used to determine the percentage chance of finding a certain mineral in a given area.

Mineral content is divided into five categories: normal metals (iron, copper, aluminum, etc.), special minerals (pergium, topaline, ryetalyn and other *STAR TREK* inventions), radioactives (uranium, plutonium, etc.), gemstones (diamonds, rubies, flame gems, etc.), and industrial crystals (dilithium, special silicates, etc.). For each category (or each mineral, if the gamemaster needs that detail) roll percentile dice, divide by two, round up, and subtract the modifier, if any. This will give the likelihood of finding it in any given area on the planet.

The modifiers show that some minerals are quite rare (industrial crystals, special minerals), and some less so. If, after subtracting the modifier, the number is zero or less, the planet will not have the mineral type in question. Only one type of special mineral or industrial crystal will be found on any planet. The modifiers may be changed at the gamemaster's discretion, particularly if he wants to 'load' a particular area with one or more minerals.

The general percentages generated in this way can be determined by a ship's sensor scan from orbit. Such a survey takes about 5 hours times the planetary gravity factor, which modifies the roll to account for a small or large planetary surface area. Round off the result to the nearest hour.

CHANCE FOR MINERALS = D100-2 FOR EACH TYPE

Mineral Type	*Modifier*
Normal Metals	0
Radioactives	-20
Gemstones	-30
Industrial Crystals	-35
Special Minerals	-40

Once the general percentage chance is determined, < landing party with a professional-level geologist (Skill Ratine of at least 40 in *Geology)* may make closer scans with « sciences tricorder. The gamemaster then makes a secret percentile'dice roll against the generated percentage to see i the area being surveyed actually contains the desired minerals. If the roll is equal to or less than the base chance fo that mineral, a deposit is present in the survey area. It i possible, but not likely, that more than one mineral type wi be abundant in a specific survey area.

It takes 10 hours for a landing party to check a squar kilometer for mineral deposits. More than one party can b used, proportionally reducing the time. (Two parties can d< it in 5 hours, three in $3^1/3$ hours and so forth.) Each part must have at least one geologist with a sciences tricordei Also, the parties must separate to be effective, which means the groups likely will be too far away to help one another if there is trouble.

At the end of the scan in an area, the geologist gains the information he seeks. If no professional-level geologist is present, the gamemaster must make a determination if the characters in the landing party have the skill to notice the mineral deposit. The gamemaster must also determine how accessible the material will be.

New Life and New Civilizations

Once the physical parameters of a planet are determined, the gamemaster may determine what type of life exists. Class "M" planets are all capable of supporting life, and the poorest of class "M" worlds will bear at least microorganisms.

Again, gamemasters are encouraged to come up with imaginative, sensible and playable animals and sentient life forms on their own. The following creation system, however, will help a gamemaster decide what the highest form of life on a new planet is like, and if it is intelligent enough to quality as a "being" and not an animal. (The quality of being above the level of "animal" intellectually is called "sentience", and such a race is called "sentient".)

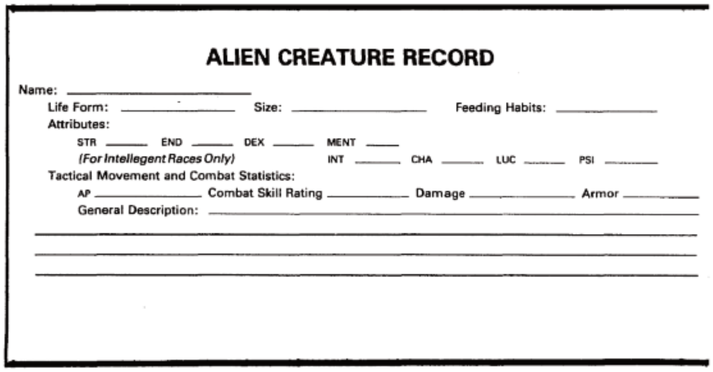
Roll % dice against the LIFE FORMS TABLE below. The result will show the most highly developed, or dominant, life-form present. In addition, representatives of all groups below the dominant group will probably be in evidence on that planet. Thus, if the dominant form on a planet is an amphibian-like creature, there will likely also be animals in the classifications of fish, insects and mollusks, and plants and microorganisms. There will not likely be reptiles, birds, or mammals native to that world.

Note that the chart is heavily biased toward mammals. This is done to reflect the vast majority of known species in the STAR TREK universe. Most dominant species on worlds visited by the U.S.S. Enterprise were mammalian. Gamemasters should feel free to change this if they so desire.

The system presented here will help determine new life-forms on the world being designed, whether or not they are intelligent enough to be called thinking beings, what they look like, and what their abilities are. Mammals predominate to reflect the *STAR TREK* universe as seen in the TV series; most dominant species on worlds visited by the *USS Enterprise were* mammals. As information is developed, it should be recorded in two places: on the *Alien Creature Record and* on the *Life And Civilization Log,* described below.

ALIEN CREATURE RECORD

The *Alien Creature Record* provided at the end of this book should be used to record the information generated when creating alien creatures, whether they are animals or thinking beings. The alien creature design system follows the record form, with each step adding new information to it. This record is shown in the illustration. Permission is granted for players and gamemasters to photocopy this form for reasonable personal use.



ALIEN CREATURE RECORD

Name: ____________

Life Form: ____________ Size: ____________ Feeding Habits: ____________

Attributes:

STR ______ END ______ DEX ______ MENT ______

(For Intellegent Races Only) INT ______ CHA ______ LUC ______ PSI ______

Tactical Movement and Combat Statistics:

AP ____________ Combat Skill Rating ____________ Damage ____________ Armor ____________

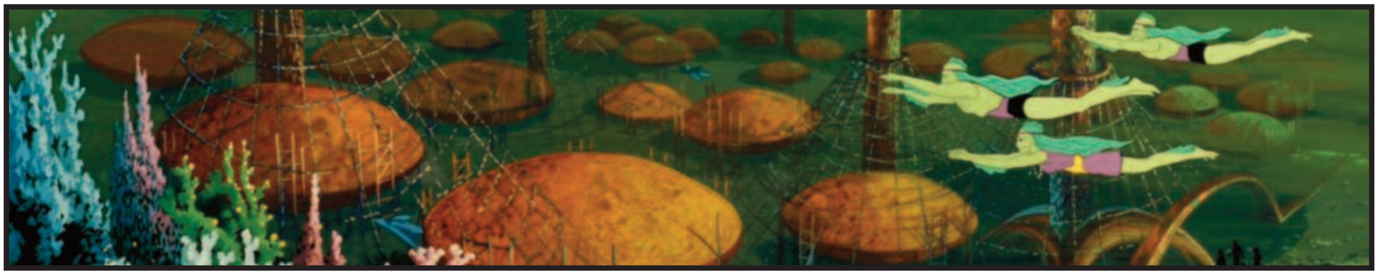
General Description: ____________

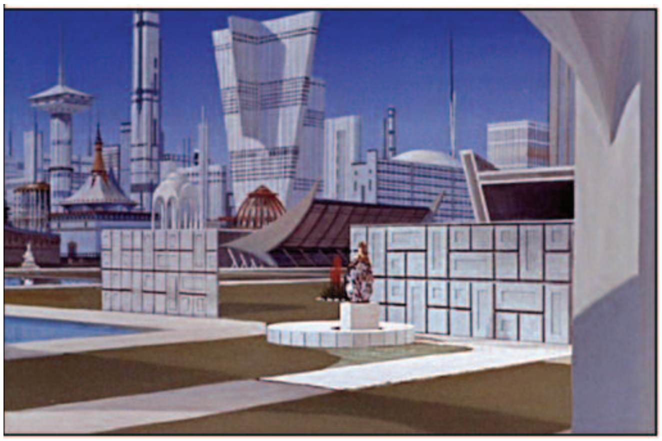
An example of this form has been provided, with all of the information filled in for the F'lanari, the dominant form for Spartal IV. After each step in the process is explained in the text, the appropriate information will be generated for this example. This information is shown shaded in the text that follows.

DESIGNING ALIEN CREATURES

Follow this procedure step-by-step, filling out the *Alien Creature Record* as each piece of information is generated. This system does not use 'one from column A, one from column B.' The table will develop a basic idea of what the creature is like and its attributes. The rest is up to the gamemaster to decide as he fleshes out the details. Create all alien creatures, intelligent or not, by using the following rules. If they are determined to be intelligent, build them into an alien race using the information in the **New Civilizations** section.

The dice rolls are meant as guidelines. Because they are random, improbable creatures may result. Feel free to pick and choose instead of rolling dice, particularly if you have something specific in mind!





Dominant Life-Form

The major life forms of a new planet may be designed using the procedure below, but only one is likely to dominate the planet, just as Man dominates Earth. It will be the most highly developed life form on the world. Representatives of all groups will be in evidence on the planet as well, but none of the groups above the dominant group will have much importance. Thus, if the dominant form on a planet is an amphibian, it is certain that there will be fish, insects and mollusks, plants, and microorganisms on the planet; but any reptiles, birds, or mammals native to that world are likely to be relatively unimportant members of the food web.

The table below gives the chances for each group of being the dominant life form; the term 'Special' includes creatures made of pure energy, gas, crystalline material, or anything else the gamemaster chooses.

The table also indicates if the dominant life form is a thinking (sentient) creature, another alien race. If the dominant life form is determined to be intelligent, it is possible (though not likely, competition between species being what it is) for another form on the planet to be intelligent as well, just as dolphins may be intelligent on Earth. If the dominant life form is merely an animal, likely with a well-developed animal intelligence, there is little chance that another, more intelligent (or thinking) race also inhabits the world.

To determine the type of life form that dominates the world, roll percentile dice and consult the table below. The 'Percent Sentient' column indicates the chance for the dominant life form to be a thinking creature. After the life form type has been determined, roll percentile dice again and compare the roll to the table to see if the life form is an intelligent race. If the roll is less than or equal to the Percent Sentient, then the dominant life form is a race of thinking beings.

If the dominant species is determined to be intelligent, make both rolls again to determine if the world has a second intelligent form. First roll to find the life form type, and then roll again to see if it is intelligent. If the second Percent Sentient roll indicates intelligence, reroll. If the new Percent Sentient roll indicates intelligence as well, there are two intelligent races on the world.

DETERMINING DOMINANT LIFE FORM

Dice Roll	*Dominant Life Form*	*Percent Sentient*
01-04	Plants	1%
05-07	Lower Animals	0%
08-14	Insects/Arthropods	3%
15-20	Fish	5%
21-35	Amphibians/Reptiles	7%
36-50	Birds/Avians	7%
51-96	Mammals	10%
96-00	Special	90%

Alien Attributes

Intelligent (sentient) alien creatures have 7 attributes just like other player character or NPC races. If they are not sentient, however, alien creatures use only 3 standard attributes (STR, END and DEX) and one special attribute indicating its level of animal intelligence, or mentation; this special attribute is called the mentation rating (MENT), as described below. Non-intelligent alien creatures normally have no CHA, LUC, or PSI scores, though this may not hold for special cases. A race may have a PSI rating, and an individual pet might even be said to have a CHA score, if it is intelligent enough to be persuasive in some manner.

Attribute Scores For STR, END, and DEX

For alien creatures of all types, STR, END, and initial DEX scores are determined by the table below, as well as the damage they do in unarmed combat or any natural armor protection they may have. These scores are determined by the creature's size and its type. For plants and special creatures, the gamemaster is on his own.

It is recommended that the gamemaster design most sentient races to be small, medium, or large in size. As with the other creation systems, the information designed here may be used or not as the gamemaster sees fit.

To use the table for the dominant race, find the creature type in the left-hand column and its size in the top row. To use the table for other animals, roll percentile dice two times. The first roll tells which type the creature is, and the second roll tells what its size is. Cross-index the creature type in the left hand column and the size in the right-hand column; the numbers in the box indicate the dice rolls necessary to find the attributes for the race.

The top number tells what dice to roll to find the average STR for the race; this dice roll should be made now. It gives a number that represents the STR of an average, healthy individual; any one of the creatures may have a higher or lower STR score, just as player character scores are higher or lower than average.

The second number tells what dice to roll to find the average END score for the race; this dice roll should be made now. Like the STR score, the roll gives a number that represents the END of an average, healthy individual.

The third number tells what dice to roll to find the initial DEX for the race; this dice roll should be made now. It, too, gives a number that represents the initial DEX of an average, healthy individual. This initial DEX will be modified later for the creature's feeding habits.

The fourth number tells what dice to roll every time the creature does damage in unarmed combat. This roll is made only in combat after a successful hit, and is not made at this time. This roll will be modified by the creature's Skill Rating in *Unarmed Personal Combat,* which is determined below.

The fifth number, if any, gives the dice roll to find the value of the creature's natural armor protection. This roll should be made at this time.

After the dice rolls are determined, roll the dice as indicated, and record the STR score, the END score, the initial DEX score, and the armor score on the *Alien Creation Record.*

Attribute Scores For INT, LUC, And PSI

These traits are created only for sentient alien races. Those new aliens that are not thinking creatures will have a MENT score instead. These attributes should probably center around a percentile die roll, just as humans and other known sentient races do in ***STAR TREK:* The Role Playing Game.** Die modifiers similar to those used for the known player and non-player races should be developed for each new race as well. Gamemasters are left to their own discretion here, but care should be taken to maintain game balance. Gamemasters should be EXTREMELY reluctant to create a race that is more lucky than Humans or more psionically gifted than Vulcans, without handicapping them in some compensating way. Make the appropriate dice rolls for INT, LUC, and PSI and record them on the *Alien Creation Record.*

INT, LUC, PSI Scores: D100 + Modifier

MENT Scores For Alien Animals

A non-intelligent alien creature still has some animal intelligence. At the lowest level, the animal reacts to its environment, but little more; such creatures have a Mentation level of *Reactant.* One step up the scale are creatures of *Low Animal Intelligence;* these creatures react to their basic needs for food, shelter, and perhaps defense, but do little else. One more step up the scale are creatures of *Medium Animal Intelligence;* these creatures have basic animal cunning and are capable of being trained. The fourth step includes creatures of *High Animal Intelligence;* these creatures have the ability to solve rudimentary problems, may have a moderately complex social order, are capable of loyalty, learn from their past mistakes, and can be trained with ease. At the top of the scale are creatures with *Very High Animal Intelligence,* perhaps bordering on true intellect; these creatures have the ability to solve more-complex problems, can learn, and are capable of basic communication with man.

The table below gives these various mentation levels and examples for each. To find the initial MENT for a new life form, roll 1D10, consult the table, and record the information on the *Alien Creation Record.*

MENTATION LEVELS FOR ALIEN ANIMALS

Die Roll	*Mentation Level (MENT)*	*Examples From Earth*
1	Reactant	Mosquito, earthworm, clamjellyfish
2-3	Low Animal Intelligence	Rabbit, chicken, snake, goldfish, ant
4-6	Medium Animal Intelligence	Rat, hawk, crocodile, bass
7-9	High Animal Intelligence	Wolf, whale
10	Very High Animal Intelligence	Chimpanzee, gorilla, perhaps dolphin

Modifiers For Feeding Habits

The creature's form and size determines its basic DEX, but this is modified by the type of food it eats. Animals that eat meat (carnivores) are assumed to be more agile, on the whole, than animals that eat only plants (herbivores), though this clearly is not always the case. Animals that eat both meat and plants (omnivores) are assumed to be somewhere in the middle. Therefore the creature's initial DEX score, determined earlier, is modified by its feeding habits.

Furthermore, carnivores are assumed to be more intelligent than herbivores, and omnivores are assumed to be more intelligent than carnivores. Thus, the MENT scores for these creatures must be modified as indicated below.

The table below shows the three types of creatures. For each new life form, the gamemaster should determine its feeding habits, either by choosing it or by rolling 1D10 and consulting the left-hand column. Then the gamemaster must read across, consult the table below, and apply the modifiers to the creature's initial DEX and MENT scores. Then the modified DEX and MENT scores should be recorded on the *Alien Creation Record.*

MODIFIERS FOR FEEDING HABITS

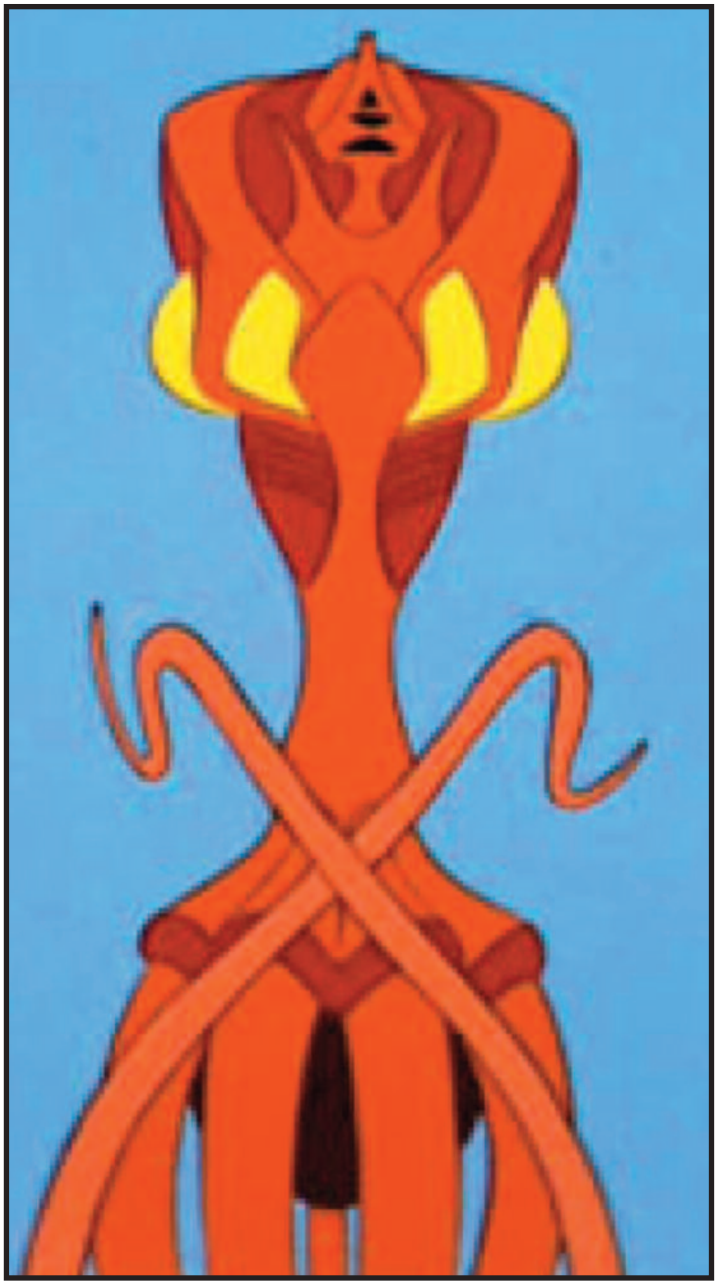
Die Roll	*Feeding Habits*	*DEX Modifier*	*MENT Modifier*
1-4	Carnivore	+20	+1
5-6	Omnivore	+10	+ 2
7-10	Herbivore	0	

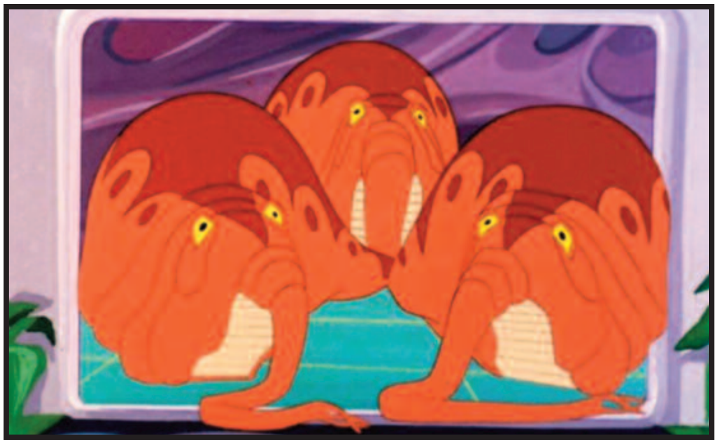
Tactical Movement And Combat Statistics

The creature's action points (AP) are determined as follows. Divide the modified DEX by 10 and round down. Roll 1D10, divide by 2, and round down again; add this to the first number to give the initial AP. To compensate for the greater agility of meat-eaters, herbivores are assumed to move more quickly (over short distances) than carnivores or omnivores in order to escape from being eaten; their AP score is modified by +2 to reflect this.

Carnivores, because they must kill their prey before they eat it, are assumed to have a higher Skill Rating in *Unarmed Combat* and to give more damage than omnivores. Herbivores, because they eat relatively defenseless plants, are assumed to have a lower Skill Rating in unarmed combat and to give less damage than omnivores. The table below gives the rolls necessary for establishing the creature's Skill Rating and the modifiers to the damage that they give. To find the Skill Rating, roll percentile dice, divide by 2, and round down; this gives base Skill Ratings between 1 and 50. The feeding habits modify this roll, so that carnivores have ratings between 41 and 90 and omnivores have ratings between 21 and 70.

The average To-Hit Number for unarmed combat is determined by adding the creature's average modified DEX to its Skill Rating in *Unarmed Combat.* Divide this total by 2 to give the average To-Hit Number for the race. This number, which should be calculated now, represents the ability of an average, healthy individual; any given individual may have a greater To-Hit Number or a lesser To-Hit Number, at the gamemaster's option.





The base damage is determined by the *Alien Attribute Table*. This is modified by the creature's Skill Rating in *Unarmed Personal Combat*. To find the modifier, divide the Skill Rating by 10, round down, and add any modifiers because of feeding habits from the table below. This gives modifiers between 5 and 10 for carnivores, between 2 and 7 for omnivores, and between 0 and 4 for herbivores. This means that every time the creature scores a successful hit in unarmed combat, the damage given is the dice roll from the *Alien Attribute Table* plus the modifier determined from the table below.

Once the AP score, Skill Rating in unarmed combat, To-Hit Number, and damage are determined, record them on the *Alien Creation Record.*

TACTICAL MOVEMENT AND COMBAT STATISTICS

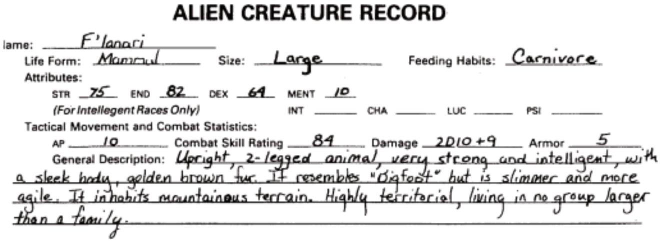
Feeding Habits	*AP Score*	*Combat Skill Rating*	*Damage Modifier*
Carnivore	DEX-^ 10+D10-H2	40 + D100-2	Skill Rating -MO + 1
Omnivore	DEX-^ 10 + D10 + 2	20 + 0100-^-2	Skill Rating -MO
Herbivore	DEXH- 10 + 010-^2 + 2	D100-2	Skill Rating + 10-1

Fleshing Out The Numbers

The *Alien Character Record* shows all of the numbers that define a new life form. Just as a *Character Sheet* only gives the skeleton of a player character, the *Alien Character Record* only gives the skeleton of the race just created. The gamemaster must look at the numbers and turn them into a flesh-and-blood (in most cases) creature. There are no real guidelines for this, but there are a number of questions that the gamemaster can answerfor himselfto help this process.

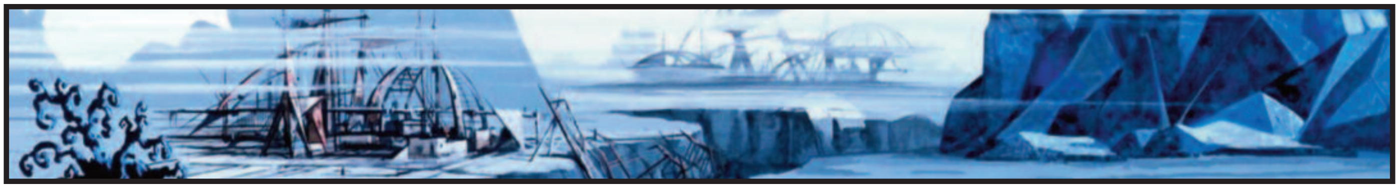
1. Where does the creature live? In trees, in the air, in water, on the ground?
2. How does the creature move? The answer to this question depends on its DEX score, its AP score, and on where it lives. For example, if the creature lives on the ground, does it walk on 2 legs, 3 legs, 4 legs, or more, or slither on its belly?
3. What does it eat? The answer to this depends on its feeding habits and its skill in unarmed combat, which can be used as a measure of its hunting ability.
4. How does it get its food? The answer to this depends on its STR, INT or MENT, its DEX, its feeding habits, and its skill in unarmed combat. The answer to this, coupled with the creature's type, size, and END may give a hint about the shape of its body.
5. What does its skin look like? The answer to this can be used to explain its armor protection.
6. How does it do its damage? With teeth, claws, tail, arms, or sting? The answer to this depends on what type of creature it is. It also can be used to explain how much damage the creature does.

When these questions (and others that the gamemaster surelywill think of) are answered, writethe information about the creature on the *Alien Creation Record* as shown in the illustration.



ALIEN CREATURE RECORD

lame: F'lanari
Life Form: Mammal Size: Large Feeding Habits: Carnivore
Attributes:
STR 75 END 82 DEX 64 MENT 10
(For Intellegent Races Only) INT ____ CHA ____ LUC ____ PSI ____
Tactical Movement and Combat Statistics:
AP 10 Combat Skill Rating 84 Damage 2D10+9 Armor 5
General Description: Upright, 2-legged animal, very strong and intelligent, with a sleek body, golden brown fur. It resembles "Bigfoot" but is slimmer and more agile. It inhabits mountainous terrain. Highly territorial, living in no group larger than a family.



NEW CIVILIZATIONS

The basic technological achievement of an intelligent race can be described by an overall assessment of the race's development in engineering and the hard sciences. Similarly, the social, economic, and political achievement of a civilization can be described by stating its development in social sciences and its basic attitude toward cooperation between individuals that shapes its specific government forms. In this game, these assessments are numerical indices called the technological index and the sociopolitical index, respectively.

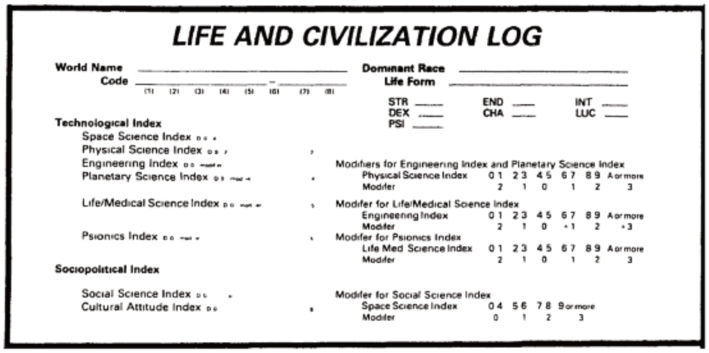
In the system following, a 1D10 roll is used, with modifiers, to generate the six numbers that make up the Technological Index and the two numbers that make up the Sociopolitical Index. If the die rolls are too high, roll several times for each roll required, using the lowest number rolled. To parallel the system for generating attributes, a system is given below that will generate indices based on Human civilization in *STAR TREK's* time, except the index for psionics, which is based on Vulcan civilization.

This system uses dice rolls to generate the data and no system of random generation is even a fraction as good as the intelligent use of the human imagination. These dice rolls should be used only to spark a gamemaster's imagination or to give a push in one direction or another. The planets generated using this system, which is purely random, may not end up as being reasonable. Gamemasters should keep in mind that the system provides a guideline to the relative chances for each civilization attribute and does not guarantee *overall* acceptability.

Gamemasters should not be bound by this dice rolling procedure, but should feel free to throw out any results that make no sense given the physical type of the alien race or the campaign situation desired. Gamemasters should be reluctant to introduce many races that exceed the Federation's capability and *extremely* reluctant to introduce a race that exceeds the Federation's capability in more than one area.

LIFE AND CIVILIZATION LOG

The *Life And Civilization Log* is used to record the important information about a world where there is some civilization. Usually, it will not be used for worlds without intelligent, thinking, dominant life forms. The log has two parts. One of these summarizes the important aspects about the world's dominant life form. The other gives the important information about the life form's civilization. In the illustration, the shaded portion is filled in from the *Alien Creation Record for* the dominant life form.



LIFE AND CIVILIZATION LOG

World Name ____________
Code ____________ (1) (2) (3) (4) (5) (6) (7) (8)

Dominant Race ____________
Life Form ____________

STR ____ END ____ INT ____
DEX ____ CHA ____ LUC ____
PSI ____

Technological Index
Space Science Index
Physical Science Index
Engineering Index
Planetary Science Index
Life/Medical Science Index
Psionics Index

Sociopolitical Index
Social Science Index
Cultural Attitude Index

Modifiers for Engineering Index and Planetary Science Index

Physical Science Index	0 1	2 3	4 5	6 7	8 9	A or more
Modifier	2	1	0	1	2	3

Modifier for Life/Medical Science Index

Engineering Index	0 1	2 3	4 5	6 7	8 9	A or more
Modifier	2	1	0	+1	2	+3

Modifier for Psionics Index

Life Med Science Index	0 1	2 3	4 5	6 7	8 9	A or more
Modifier	2	1	0	1	2	3

Modifier for Social Science Index

Space Science Index	0 4	5 6	7 8	9 or more
Modifier	0	1	2	3

The civilization creation system follows the unshaded part of this log, with each step adding new information to the it. An example of this log has been provided, with all of the information filled in for the civilization of Phoebus III. After each step in the process is explained in the text, the appropriate information will be generated for this example.

THE TECHNOLOGICAL INDEX

The technological index is composed of 6 numbers that range from 0 to 9, one for each area. Zero indicates no noticeable development and 9 indicates the highest level of development known at the time the Federation adopted the system; intermediate levels have proportional development. If a civilization has gone beyond the Federation in some respect, it is given a letter value instead of a number, beginning with A, which would correspond to a value of 10, and so on. Alphabetic designations are defined by the Federation Science Council as they are needed; a recent addition, they are rare and have been used only for psionically advanced races such as the Metrons and the Organians.

Technological Index Classifications

The classifications in the technological index, then, is a six-place series of numbers and letters, with the places represented in the following order: space sciences, physical sciences, engineering, planetary sciences, life/medical sciences, and psionics. For each area, the various numbers (or letters) represent breakthroughs that have a major effect on a culture's development. These breakthroughs do not proceed equally in all areas of achievement. Thus, where a race may be highly advanced in life sciences, it may still know very little about physics or engineering.

For example, the designation for Terra (Earth) in *STAR TREK's time* is 999994. In *STAR TREK's time,* Terra is on the verge of gaining a rating of "A" in life sciences, due to widespread experimentation in large-scale organ regeneration. A major breakthrough would make Earth the most advanced Federation member-planet in this regard.

The accompanying table gives brief descriptions for the divisions in the technological index for each classification, along with some representative accomplishments at each level.

Creating The Space Science Index

Generate the space science index by rolling 1D10. Subtract 4, making all negative results 0. This will give space science indices of 0 to 6. Space science indices above 6 are possible only if the gamemaster chooses that a culture will be capable of interstellar travel.

No interstellar-capable race should be generated as the result of random rolls. The addition of another spacefaring race to the *STAR TREK universe* should be considered carefully by a gamemaster, keeping in mind its effects on his campaign and on the players in it. Such a step should never occur because of a series of die rolls.

After it has been created, record the space science index on the *Life And Civilization LOQ* in the space provided.

Creating The Physical Science Index

Generate the physical science index by rolling 1D10. Subtract 2, making any negative numbers 0. This gives physical science indices between 0 and 8. Spacefaring races probably have physical science indices of 9 or more. After it has been created, record the physical science index on the *Life And Civilization Log* in the space provided.

Creating The Engineering Index

Generate the engineering index by rolling 1D10. Modify this base number according to the physical science index, choosing the modifier from the table below. After it has been created, record the engineering index on the *Life And Civilization Log* in the space provided.

ENGINEERING INDEX MODIFIERS

Physical Science Index	*Engineering Index Modifier*
0or1	-2
2or3	-1
4or5	0
6or7	+1
8or9	+2
Aormore	+3

Creating The Planetary Science Index

Generate the planetary science index by rolling 1D10. Apply a modifier from the table below, based on the physical science index. After it has been created, record the planetary science index on the *Life And Civilization Log* in the space provided.

PLANETARY SCIENCE INDEX MODIFIERS

Physical Science Index	*Planetary Science Index Modifier*
0or1	-2
2or3	-1
4or5	0
6or7	+1
8or9	+2
Aormore	+3

Creating The Life/Medical Science Index

Generate the life/medical science index by rolling 1D10. Apply a modifier from the table below, based on the engineering index. After it has been created, record the life/medical science index on the *Life And Civilization Log* in the space provided.

Apply a modifier from the table below, based on the engineering index. After it has been created, record the life/medical science index on the *Life And Civilization Log* in the space provided.

LIFE/MEDICAL SCIENCE INDEX MODIFIERS

Engineering Index	*Life Science Index Modifier*
0or1	-2
2or3	-1
4or5	0
6or7	+1
8or9	+2
A or more	+3

Creating The Psionics Index

Generate the psionics index by rolling 1D10 and subtracting 3. Apply a modifier from the table below, based on the life sciences index. Make all negative numbers 0. After it has been created, record the psionics index on the *Life And Civilization Log* in the space provided.

PSIONICS INDEX MODIFIERS

Life Sciences Index	*Psionics Modifier*
0or1	-2
2or3	-1
4or5	0
6or7	+1
8or9	+2
Aormore	+3

ANIMAL LISTS

As illustrations of how animals can be created for use in your own campaigns, if you so desire, the following list of statistics for Earth and alien animals is provided. The alien animals list is followed by more detailed descriptions of some of STAR TREK's more colorful creatures.

EARTH ANIMALS

ANIMAL	STR	DEX	END	MNT CLASS	AP	DMG	ARMOR
Bear	80	45	65	4	9	2D10+4	2
Chimpanzee	50	65	60	5	9	1D10	0
Cow	80	55	75	3	11	2D10	0
Dog (small)	25	60	25	4	10	1+10	0
Crocodile	60	50	50	3	9	1D10+6	3
Dolphin	50	50	50	5	13	1D10	0
Elephant	105	40	100	3	8	2D10+6	6
Gorilla	85	55	70	5	8	2D10	2
Horse	85	75	85	4	15	2D10	0
Housecat	15	75	15	4	10	1D10	0
Lion	60	75	65	4	13	1D10+6	1
Rat	5	55	10	3	7	1D10-3	0
Snake (boa)	45	55	40	3	7	1D10	0
Snake (rattler)	30	65	30	3	8	1 pt. no.	0
Wolf	45	55	30	4	10	1D10+2	1

ALIEN ANIMALS

ANIMAL	STR	DEX	END	MNT	AP	DMG	ARMOR
Cappelan power-cat	50	55	50	3	8	4D10+10 (shock)	3
Glommer	10	20	10	1	3	–	1
Horta	100	50	100	*	8	ACID	10
Le-matya	85	70	85	4	11	2D10+4 No.	3
Mugato	80	60	80	4	10	2D10+3 No.	1
Sehlat	95	65	95	5	11	2D10+5	6
Tribble	5	5	5	1	6	–	0

* = damage from poisons in addition to stated damage
* = damage being (not rated with animal MNT CLASS)

GLOSSARY OF ALIEN CREATURES

CAPELLAN POWER-CAT: A large furry bobcat (about the size of an Earth brown bear) with gold eyes, reddish fur, brown spines along it's back, and a small tail. The power-cat can generate an electric charge of 2000 volts (doing 4D10+10 damage if it touches you) when angry. It is nearly always angry.

GLOMMER: A genetic construct, designed by the Klingons. It is intended to do nothing but eat tribbles, and cannot attack anything else. When it catches a tribble it drops it's long, multiple legs around the hapless furball and swallows it in one gulp.

HORTA: Not really an animal, the Horta is an intelligent silicon being thought to be the miners of Janus VI. It is about 7 feet long, three feet wide, and covered with mottled asbestos plating with multiple tentacles on the ventral surface. The Horta can burrow through rock very quietly (treat movement through solid rock as if the rock weren't there) by secreting a powerful molecular acid. This acid burns for 10D10 per turn until neutralized by washing it off. The Horta can spit this acid up to 3 meters for purposes of self-defense, but will not attack other life-forms unless forced to do so.

LE-MATYA: A very large creature, resembling a large mountain lion with unusual diamond-shaped markings. It's teeth and claws are very poisonous. (1D10 END damage for 1D10 turns unless antidote is administered. If victim is bitten or clawed again, extend the time by another 1D10 turns.) Native to the planet Vulcan's desert regions.

MUGATO: A native of the planet Neural, it is a large white ape-like creature with a red face and a large horn projecting from the top of its head. It's bite is poisonous (complex poison, 1D10 per hour until death). The only known cure is a native Neuralese root, from the mako plant. If the root is applied to the wound using a technique known only to the Kanutu witch doctors of that planet, the poison is neutralized, and no further damage is taken.

SEHLAT: The Vulcan "teddy bear" is a giant bear-like creature with six inch fangs. They can be dangerous, but Vulcans handle them with relative ease. Sehlats can be tamed as pets, and are very loyal and loving. In these cases, they will defend their master to the death. Sehlats are also very long lived creatures, some getting to be over 70 years old.

TRIBBLE: The tribble is a small (6-10 inch) ball of fur that has two real functions in life; to eat and to reproduce. It does both very well. The more a tribble eats, the faster it will reproduce because a tribble's entire metabolism is geared to reproduction. Tribbles are asexual, reproducing at will (and, as Dr. McCoy says, they have a lot of will) without the need for contact with another tribble. Tribbles are extremely affectionate and their purring has a tranquilizing effect on most humanoid species, the notable exception being Klingons. Tribbles hate Klingons and the feeling is mutual. In the presence of a Klingon, a tribble will screech in a rapid chittering fashion until either it or the Klingon is removed fromthe area. A second form of tribble was genetically engineered by Cyrano Jones. The second form of tribble does not reproduce when it eats. It merely grows! If the giant tribble is disrupted by some outside source (certain drugs, phaser or disruptor fire, or even a sharp blow), it breaks apart, being revealed as a colony creature composed of hundreds of normal-sized tribbles!

The gamemaster may use the above examples as guidelines for fleshing out the animals he/she creates with the animal creation system. Be imaginative in fashioning the background, shape, physical appearance, and actions of your alien creatures. A dozen logically developed animals are worth a hundred senseless random creations in terms of play value and enjoyment.

THE SOCIOPOLITICAL INDEX

The Sociopolitical Index is a two-digit index that contains values from 0 to 9. The first digit in this index is a measure of the culture's achievement in social science. The second digit is an indication of the culture's attitude toward cooperation.

When listed along with the Technological Index, the Sociopolitical Index follows it, with the two separated by a hyphen.

Social Science Index Classifications

The social science index, like the hard sciences indices within the technological index, is a linear progression in which 0 indicates no achievement and 9 indicates the greatest achievement known to the Federation at the time the index was determined. The table below gives the divisions of the index and examples for each division.

SOCIAL SCIENCE INDEX CLASSIFICATIONS

Rating	*Accomplishment*
0	No accomplishment
1	Recognition of formal leadership
2	Development of religion; specialization in professions
3	Development of social classes; symbolic economics
4	Basic socioeconomic theory
5	Basic psychology of own race
6	Psychoanalysis; behavior modification
7	Large-scale social planning
8	Elimination of racial, cultural, or sexual prejudice
9	Psychological theories and principles about alien races

Creating The Social Science Index

To create the social science index, roll 1D10 and subtract 3. Apply a modifier from the table below, based on the space science index, making all negative numbers 0. This will give a social science index between 0 and 7 for non-spacefaring races, and higher indices for races who probably have had contact with other spacefaring races. After it has been created, record the social science index on the *Life And Civilization Log* in the space provided.

SOCIAL SCIENCE INDEX MODIFIERS

Space *Science Index*	*Social Science Index Modifier*
0 through 4	0
5 or 6	+1
7 or 8	+2
9 or above	+3

Cultural Attitude Index Classifications

The cultural attitude index is more circular than linear, with no one division of the index considered inherently superior. The progression from 9 continues back to 0. Thus, 0 does not indicate no accomplishment as in the other indices. This is not to say that cultures need necessarily move along the chart in one direction or another. Federation members and associated cultures display a wide variety of index ratings, from anarchy to monarchy to unity and back again. Many of these societies have developed from one classification to another, as indicated by the table, but a number of others have not. Terra (Earth) in the 20th century and in *STAR TREK's time* has a cultural attitude index of 7. Vulcan has an 8, but just barely.

CULTURAL ATTITUDE INDEX CLASSIFICATIONS

Anarchy: This attitude has no form of enforced or codified cooperation between individuals. This can be a very primitive development as shown by cultures that have not learned to cooperate. It can also be a very advanced development, as shown by societies that have developed beyond the need to enforce or to specify the forms of individual cooperation. Thus, this classification both begins and ends the table, making it circular.

Pre-Tribal: This classification includes cooperation only by very small family groups or by larger groups on a temporary or some-time basis, such as temporary hunting alliances.

Early Tribal: This designation includes semi-permanent groups beyond the members of a family, as for hunting or mutual protection. Strong individual leaderships, rituals and customs are not present to any significant degree. Vulcan and Andor possessed early tribal structures of great stability.

Advanced Tribal: This designates societies with more stable groups, centered in a single area, that maintain a strong cultural identity, tribal customs, strong leadership, and identifiable legends, traditions, and history. The designation 'tribal/ held by some early sociologists to be inferior, has been proved on many planets to be a viable and very stable approach to cooperative effort. Modern Federation sociologists point to Earth's own American Indian cultures as being an excellent example of a very healthy form of advanced tribal structure.

Feudal: Societies in this classification are more widespread than tribal societies. They have developed an interdependence between the leaders and the followers, both groups having duties and obligations toward one another that bind them together, much as in an extended family. Choosing leaders is more ritualistic and less immediately practical.

Monarchy: Cultures in this classification have developed extremely strong leader/follower divisions, with selection of leaders almost exclusively ritualistic. Power is exercised by a few over the many, with fewer obligations on the part of the leadership.

Controlled Monarchy: In these societies, strong leadership of a ritualized nature is combined with a set of checks and balances to insure the well-being and cooperation of the populace.

Representative Structure: In this classification, leaders are chosen and decisions are made by representatives selected from among smaller interest-groups, whether they be regional, professional, or with some other base. Strong checks and balances protect the populace.

Participatory Structure: In these societies, individuals participate directly in major decision-making. For practical considerations, most of these cultures either are composed of a smaller number of individuals, or occur in technologically advanced societies.

Unity: Societies in this classification have no need for individual difference of opinion, such as in highly telepathic groups, hive cultures, or colony organisms.

Creating The Cultural Attitude Index

To create the cultural attitude index, roll 1D10, reading 0 as 0 and not 10. Modify this roll as needed, such as for large populations which are not technologically advanced, so that unlikely cultural attitudes are avoided. Record this index on the *Life And Civilization Log* in the space provided.

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ROBOTS IN STAR TREK®

by **Pete Rogan**

Say "robots" and people think of mechanical men, R2-D2 and Isaac Asimov. Say "*Star Trek* robots" and people don't quite know what you mean. But what about M-4, Flint's robot in "Requiem for Methuselah"? How about the androids of "I, Mudd", "What Are Little Girls Made Of?", and "Return to Tomorrow"? Androids in that episode were built on the *Enterprise*. Robots in *Star Trek* exist, even abound, but they are very carefully disguised. When they aren't disguised, they are handled very, very carefully.

Robots are as old as science fiction, older, even. The Golem of Biblical fame was a constructed machine made to look like a man. Virgil is said to have had bronze archers defending his estate. The fascination in making a machine in the form of a human being, capable of performing a human task, is an ancient one that continues to fuel modern imaginations. Industrialization, the development of electronics and the computer have changed the old idea of robotics completely. Machines of the 20th Century not only perform physical labor, but can take over human mental efforts, as well.

For all their universal application, robots are not common sights in the Star Trek universe. When a machine identifiable as a robot makes an appearance, it is handled very gingerly. The first meeting between Kirk and his party and the robot M-4 was a hostile one. Why, in so technologically advanced a society, should this be so? Why don't we see a lot of mechanical men, droids, waldoes, and such cohabitating with humans?

MEN AND MACHINES

By the late 20th Century, robots were virtually universal, and by far the larger portions of them did not fit the man-form historical image of "robots". An industrial robot was nothing more than an arm, often without even the most rudimentary of sensors, and an aircraft autopilot was no more than a box that used the entire craft as its "body". So-called "smart" machines, with computer-assisted functions, littered everyday life. Ground cars could keep track of their own fuel and maintenance status, home appliances could monitor their own safety performance, and home computers could peform an amazing range of duties, from playing games to balancing your budget to keeping an agenda for a household. Before the 21st Century was very old, a machine with computer guidance could be made to perform almost *any* task a human being could perform. Robots could be built to diaper a baby, mow a lawn, drive a car, even supply first aid. It was even possible to construct artificially-intelligent machines that looked very much like humans, enough to fool the casual observer. The Age of the Robot had fully arrived.

There wasn't much of a market for them, really. People felt uncomfortable and unnecessary with machines that could do anything they could do, better, more accurately, and faster. There were many things that computers and robots made easier, or even possible, that were beyond human capabilities and that added to the welfare and comfort of human beings. But, after having the possibilities saturated, people began to feel that some things needed to be done by hand to prevent technology from dehumanizing them. So no one wanted a baby-diapering machine, or could afford an automatic shoe-tier. With the depredations of the Eugenics Wars, the value of that neglected quality, "humanity", was cherished even more. People, as they were, were more important than any tool or futurisic improvement.

Out of that time grew the basic ethic of man and machines, and after other spacefaring races were discovered, was found to be common to all the most advanced. Though it has never been fully stated, its basic premise is simple: Robots, computers, and other machines are only tools to serve human needs. Only human beings can understand and find ways to meet those needs. To let a machine do it is a lessening of humanity.

The idea seems reactionary and antiprogressive, but it made possible the human exploration of space and the spread of human civilization. Even on the primitive Apollo and Skylab missions, the supremacy of human beings over their tools was intended and necessary. If it weren't for human intervention, mechanical failure would have terminated many missions. On the Apollo XIV moon landing, the entire expensive remote sensor array would have been useless because of a malfunctioning reactor unit. An astronaut repaired it by pounding on the reactor with a hammer! On Skylab, the entire space station would have been lost had it not been for astronauts who deployed the faulty solar panels and placed a thermal "umbrella" to shield the station from the sun. It has been the unvoiced assumption of all space exploration that the most important thing to send is man himself.

The ethic also has a present value to all starfaring races. Because the capabilities of machines are expanding enormously, there is a real danger in creating a computer, a robot, or a device that would not just aid living beings, but replace them when it should not. There will always be a large grey area between things living beings should do and those that machines should. It is invaluable to learn a foreign language, for instance, to understand the way the beings who use it think, feel, and believe. No one can study Vulcan logic without having to absorb the Vulcan language and its simple, precise grammar and rigid, reliable values. In Vulcan, one word serves for both "and" and "but"; it is difficult to explain why without seeing that, to a Vulcan, the words have equivalent meanings but for an emotional component that merely dis figures logical understanding.

But, in practical use, since the average intelligent being may need to converse in several languages not native to his or her homeworld, electronic translators are invaluable. Is it wrong to use them in conversation, say, if an Andorian visits Earth and hasn't the time to learn English, French, Spanish, and so on? The use of such devices does irritate and offend some people, much as 20th century phone-answering machines did. But then, as now, people coped by learning new rules of etiquette and conduct. The flexibility of living beings is often tested by new technology, and much that is necessary to Federation civilization would be lost to machines if they were not "kept in their place".

In general, there is nothing wrong with using machines to make a difficult or tedious task easier, but, if a machine is used to do too simple a task, it is as inappropriate as riding a motorcycle indoors. One always uses just enough tools to do a job, and avoids using more.

ROBOTS IN *STAR TREK* DAILY USAGE

Robots literally crowd the 23rd century, but they are so subservient and well-tamed that their presence is hardly noticed. They rarely look like living beings and they don't seem like robots; they have no arms, or legs, no eyes or independent choice of motion or destination, and they don't talk back. Some people might find them hardly robots at all, but they are. They are robots built to the 23rd Century ideal; they do just what they are supposed to do, whether it is moving people from place to place (like turbo-lifts) or making them a meal (like food processors).

There are robots of immense sophistication and intelligence, with quite a good deal of free choice. They tend to be of immense size also, and they are usually found in space, far from any inhabited world, performing tasks that would otherwise be impossible to do. The two largest classes of such robots are automated mining and extraction stations, and robotic starships.

Automated mines are the largest robots built by Federation beings. They can be vast, sprawling aggregations of machinery covering many kilometers of land and water, or occupying thousands of cubic kilometers of empty space. They do the basic extraction work required for maintaining the industrial framework of the Federation, locating and mining and refining metals, minerals, petroleum, and hundreds of other substances in thousands of distant and uncomfortable locations. Robots extract lithium from the bottom of chlorine atmospheres and rubies from the floor of the ocean. They collect meteoric nickel-iron from asteroid belts and scoop rare gases from the cloud tops of gas giants. They do all this in lonely, self-contained splendor, for, after their construction and activation, it could be decades before another living being ever saw them again.

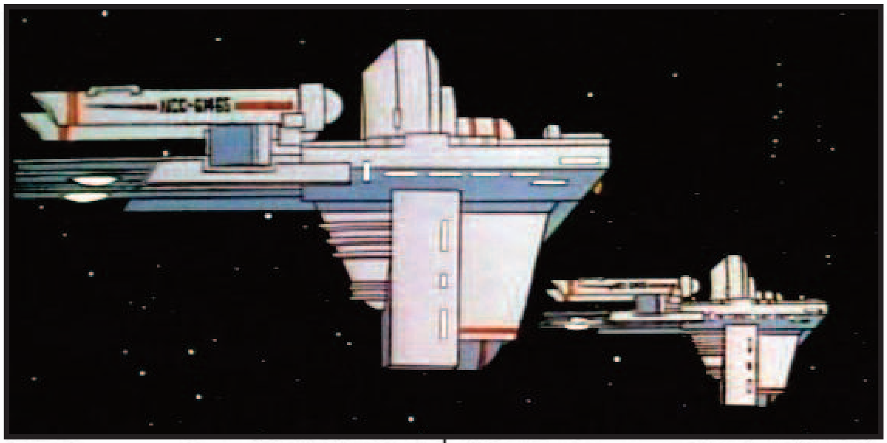
Automated mining stations make their own spare parts, do their own repair work, and oversee their own procedures and efficiency. They even do their own prospecting with separate robotic vehicles. Since they have no living beings to endanger, most of the time, they can be immensely efficient and terrifyingly fast. The depths of an automated mine would strain Dante to describe, for they would be airless, lightless, heatless pits filled with massive, hurtling machines in ceaseless motion.

Such installations, however autonomous, still have stations for living personnel to oversee and even override their operations in emergencies. Every automated extraction station has a control room with readouts and controls for all the automated functions, including the installation's computer. There are arrangements for living quarters, should a crew need to stay over for any length of time. Federation law requires such a set of manual overrides and living quarters on automated stations, regardless of the size or unlikelihood of interference. Many mining companies have elaborate security systems protecting their investments from unauthorized use; no one can just land and take over a megacredit mining station with the press of a button.

Semi-automated facilities, with small but present complements of live workers, are the general pattern for all industry in the Federation, including some harvesting and foresting operations that could be done entirely with machines. There is something horrible about an automated machine devouring a pristine wilderness, so foresting and sea-fishing factories have live overseers with the education and training to avoid ecological damage.

Automated starships are the largest mobile robots ever made, and they are, after the automated extraction stations, the foundation of the Federation's industrial wealth. Robotic ships carry the products of robotic extraction stations to markets at habitable worlds, ply the lonely but well-travelled routes that would bore live crews, and provide raw materials to industry at historically low costs.

Most automated ships are gigantic, massing up to one million tons and can go higher. Nearly all of them are intended for large-scale bulk shipping, though there are some few exceptions. Under computer control, these ships fly themselves from inhabited factory worlds to the automated stations, where they are loaded in orbit by robot lighters. These automated shuttles generally are made to standard sizes, the better to fit the automated cargo ship's



loading apertures. A robot lighter literally plugs itself into one of the standard docking ports, and the ship's own cargo-handling apparatus opens its nose, extracts the cargo, seals the lighter, and ejects it for its downward journey. Newer automated vessels have bulk transporters for faster cargo handling, but since most automated ships and stations have long service lives and the majority of them predate the transporter era, robot lighters are likely to be around for quite a few years yet. Cargo unloading at a destination world is another matter, where time is a factor, and robotic lighters are sometimes assisted by live workers and newer technology.

Like automated extraction plants, automated starships are required by law to have manual controls and life-support machinery. Unlike fixed installations, robotic starships have very Spartan and utilitarian accommodations. A robotic extraction station may require a large contingent of programmers and technicians to change the basic functioning of the entire station, but a ship, being much simpler, can be repaired either very quickly or only at a shipyard. Its manual controls tend to be smaller, though they tend more to diagnostics, and the computer station is much more massive than in crewed ships.

Flying a robotic starship through its manual controls is a torture to be avoided, if at all possible. A robotic ship's profile is very different from a crewed vessel's; virtually nothing about an automated ship will be familiar to anyone with only crewed-vessel experience. For one, the gradations of engine power are coarser; the ship accelerates and decelerates quickly, in maddening and possibly damaging (to living beings) jerks, whether at warp speed or at sublight velocities. Robotic ships maneuver very slowly, partly because of their mass, and partly because they are not built for rapid course changes. The crude speed controls and sluggish steering are aggravating, but they are compounded by a very simple set of sensors. Robotic ships normally navigate through so-called "transit windows", slices of space and stars carried in computer memory. A ship passing through one of these "windows", if it goes through the approximate center, will arrive at its destination. The navigation computer usually just compares very low-grade sensor data with its memory of a "window", correcting course as needed, and using short-ranged sensors and navigational deflectors to avoid or just shove out of the way objects in its path. A live crew must either provide new navigational "windows" for the computer, fly along the course "window" designate, or have their destination in sight via the short range sensors. It's easy to see why most manual pilots prefer to steer robotic ships to drydock via remote control whenever possible. Flying an automated starship on its manual controls, according to one pilot, is like "jockeying a million-ton jeep".

Sometimes there is no choice, as in the very rare occasions of crippling damage or stranding. An automated ship unable to make way will send out a distress signal asking for rescue and repair. A reward for rescuing and repairing such ships is usually offered by the owners, with a small reward for the first vessel reporting its position and status if rescue isn't possible. If the ship is destroyed, no reward is paid. Most of the time engine malfunctions are the cause of stranding, but, occasionally, worse fates befall them. Such ships are easy prey for pirates, though, unless they have a use for several million tons of raw materials like clay or crude oil, the taking is not worth the effort. Yet it happens. Much more rarely, a ship encounters an object or phenomena in its path, such as a nearby ion storm, a severe solar flare, or other event that the computer cannot deal with and refuses to take the ship into. Robotic ships have a very good survival instinct.

Once in a while, the worst possible thing happens, and the computer breaks down. Most of the time, triple back-ups keep the ship flying, but sometimes a breakdown occurs that can't be bypassed, and the ship's performance is degraded. A robotic ship with a faulty computer may veer off-course, strand itself near or on a world, send out a false distress signal (or none at all, more likely), even tag along behind the first ship it encounters. Companies that own robotic ships will pay to have these vessels rescued, just as if they had broken down normally, but rescuing such a ship with a malfunctioning computer is extremely hazardous. Literally anything can happen with such a disabled machine. One, the *Greely Sentient*, nearly succeeded in ramming the *Argon Explorer*, a much smaller ship that was attempting to close with the erratic vessel.

Robotic systems with very little or no human supervision are occasionally found in other, usually unique applications. Deep space warp probes, gathering general information in sparsely-settled regions of space, are a Federation fixture. Sometimes merchant companies use backup robotic systems on ships going into unknown or hostile territory, with orders to return at all costs if anything happens to the crew. And, of course, where labor is hard to come by, mobile man-sized units and androids can be found.

Robots with volition, the ability to make decisions on their own, are not often found in the Federation. The reason is simple to state but hard to explain. The normal human brain contains some ten to the tenth power neurons, the basic "switches" in the human computer. Artificial neuristors, the basic building-block for duotronic computers and higher systems, have been put together in aggregates as large as five times the human average. Theoretically such machines, being able to use all these circuits instead of a paltry 20% or so that human beings do, should also be that much smarter. Actually, since nerve cells transmit impulses at only 100 meters/second or so, and a computer transmits them at just under the speed of light, they should be incomparably faster at thinking. They are not. The few times that such devices have been put together of such size, they have failed to meet the design parameters. How badly they missed them may never be known; the Federation has classified all information concerning superintelligent cybernetic devices. Rumors in the artificial intelligence field say that these devices nearly always suffer "nervous breakdowns" of startling proportions, usually within a few minutes of activation. Simply put, superintelligent computers are being built; they just do not work.

The most reasonable explanation has to do with programming. As computers grow larger, their "education" must be more carefully tailored and administered to aid in cognition or "thinking". It takes years to educate a baby, a far simpler piece of cybernetic engineering than many computers, into a useful and functioning individual. Apparently, highly complicated computers require much of the same sort of treatment. Exactly what kind of programming this would entail has yet to be determined. To produce such superintelligent machines may be technically feasible, but may also require a supereducation beyond the current capabilities of any Federation race.

We know of such projects and their disappointing results because of the notable failure of one of the more spectacular supercomputer designs: the M-5 multitronic unit invented by Dr. Richard Daystrom. In that experiment, a computer with Dr. Daystrom's personality engrams superimposed on it became confused and took a simulated attack for the real thing, destroying the Federation Heavy Cruiser *Excaliber*. It has never been made clear whether Starfleet knew of the engrams before the real test; in any event, no one seems to have predicted the results. It will likely be a long while before Starfleet again attempts to put combat capability into robotic hands. For the conceivable future, in all applications where man and machine must work together, living people will always be in charge. At least within the Federation.

ENCOUNTERS WITH ALIEN ROBOTS

Not everybody in the Galaxy believes in the primacy of live beings over machines. In many cultures, the "cult of the computer" has completely taken over; the most striking example is that of Beta III, a culture completely stultified by the computer named Landru. A number of cultures have built perfect androids and allowed them to run their civilization for them. These cultures declined, but their androids did not. Exo III and the dubiously-named "Mudd's Planet" have advanced industrialized android societies but only scattered reminders of their long-dead builders.

Such limited studies of android societies as have been done show that the androids by themselves have almost no motivations. They do not hunger or thirst, aside from a need for energy and the odd part or two, and they have no desire to create or advance themselves. The studies suggest two things: purely machine-maintained cultures are less vigorous and thus less viable than those that living beings create; and that the android cultures that remain reflect at least partly the emptiness of their makers, in that they wish only to maintain, to serve, to protect, and not to strive, to build, to exceed their limits. The symptoms of decline, in other words, may very well be the disease. A number of prominent Federation social scientists, led by Dr. Samuel Loring of Texas, Earth, have gone on record saying the desire to stop striving as a culture is tantamount to decline. Some other authorities say Dr. Loring's theory is tantamount to the Klingon "grow or die" dogma. Dr. Loring has refuted this contention, and pronounced such authorities as "dumber than ditch carp."

Advanced civilizations tend to produce advanced machines, and so the Federation is constantly encountering alien devices made to meet alien needs. Many of these have an artificial intelligence, or follow programming, or even resemble the physical shape of their makers. Many of the more interesting and dangerous artifacts of alien races are robots.

Some races have been shy, and sent out probes and artificial facsimiles of their selves to encounter aliens, in space and elsewhere. Sometimes, the purpose of robots has been entirely irrelevant to the circumstances of contact; Starfleet and some private vessels have many times encountered robotic mining and extraction stations and ships belonging to races unknown to the Federation. Robotic colony ships have been found, such as the asteroid *Yonada*, intended to carry a civilization on a centuries-long sublight trek to another habitable world.

Not very long ago, an outpost of the long-dead Kalandan Empire was discovered, empty of life but still functioning, with a deadly self-defense system relying on projections or perhaps android constructs of its last occupant to destroy intruders. Unfortunately, the outpost's computer was itself destroyed before it could be studied, and other explorations in the same region of space are spotty and incomplete; we do not know the full nature of the Kalandans or their machines, which is a great loss. The Kalandans were far in advance of the Federation in their technology, and yet they were not destroyed by it, a seeming rarity in the civilizations the Federation has found. The Kalandans could have taught the Federation much; even the world on which the outpost was found was artificial.

The Federation races often use robots for police and for security monitoring. They can be stationery, mobile, even flying; they can carry stunners, netguns, or more daunting armament. They are very effective devices, one of the few applications "robot-looking" robots still have in the Federation. Some races, human included, have used robots for more warlike activities, including the delivery of nuclear warheads. Many other races have apparently had the same idea, but taken it a good deal farther. When the Federation encounters alien robots meant for war, they react with predictable alarm. Not all weapon systems are as primitive as nuclear arms.

The First Federation starship *Fesarius* was almost planetary size, and had the power to hold a heavy cruiser immobile in its tractor grasp. Yet it was so sublimely automated that one small humanoid could operate the entire craft. Starfleet may indeed have had this vessel in mind when they allowed the M-5 experiment.

On some occasions, the use of robotic arms is more bizarre. A peace mission to Eminiar and Vendikar found that the "war" they were sent to settle was a battle solely between computers, the "casualties" willing citizens capable of stepping into a disintegrator booth to prevent the war from becoming a real one. One of the more treacherous encounters was the rediscovery of the earth interstellar probe Nomad. In the course of its mission, it had collided with and combined into an alien probe of great power, becoming a destructive but confused robotic explorer that "sterilized" worlds of their "imperfect" life-forms.

By far the most destructive encounter in space with an alien robot was the discovery of a gigantic robotic ship equipped with an antiproton beam and programmed for the destruction and ingestion of entire planetary systems. It originated outside the Galaxy, most likely, and may well have been intended as a "doomsday weapon", a device of such overwhelming might that it could never be used. This one, it is safe to say, was used, and went looking for other prey. Destroying it cost Starfleet the *USS Constellation* and over 400 crewmen. Yet if it had proceeded towards Orion space and the densely-populated Rigel system, many billions of lives could have been lost. The scope of such destruction, happening over many millenia, staggers even the computer-assisted imagination.

ROBOTS IN STAR TREK: THE ROLE PLAYING GAME

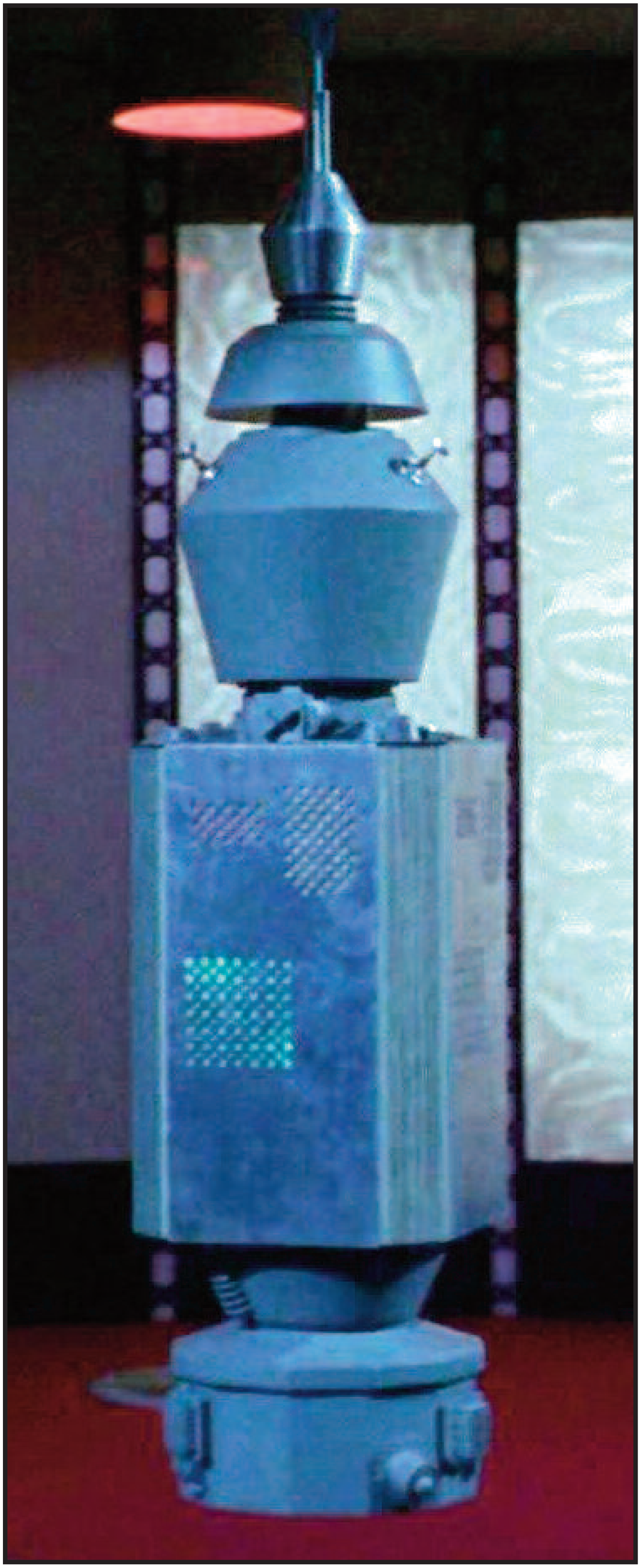
It's impossible to draw limits for robots. The very concept is not perfectly definable. The word "robot" is used to describe moving objects and stationary ones, things that are very smart tools or seem to be rather dense people, or flawless mimics of living beings that are better than the originals. They can be any size, from antlike microminiaturizations to the kilometers-long doomsday weapon. They can fly, hop, roll, walk, even slither. They can be equipped with radar, sonar, infrared vision, an electronic sense of smell or touch. They can obey a prime directive built into them, anything from a need to nurture living beings or creating works of art to a blind urge to murder. If a purpose can be imagined, a need envisioned, a machine can be built to serve it. There are practically no limits to them.

The only limits are ethical. There are some things 23rd Century Federation citizens simply aren't going to find normal. One of these is a machine that acts on its own, without living intervention. There is no way to fully understand what is going on in a robot's mind, and anyone with sense will treat such devices very warily.

The GM who wants to make encounters with robots realistic needs to remember that any robot is inferior to people. The berserker was vulnerable to a nuke in the mouth; the possessive androids of "I, Mudd" had only one coordinator and could not cope with deliberate irrationality. Landru and Nomad were imperfect, according to their own programming, but unaware of it until somebody explained it to them, and then they suicided. Terribly fragile things, robot egos.

GMs should build robots as strong, as smart, as unbeatable as they want. But remember that they will always have a weakness somewhere, an Achilles heel. There should always be something that the players can find out to give them a solution to their robot problems.

All robots, all cybernetic mechanical tools, are made to serve somebody, answer a purpose, do a thing. Eventually they must answer to somebody for what they do, or have done. This is always true, even if it is nowhere in their programming. They will always be tools, sometimes on a rampage, but always doers of deeds, makers of things, and never the dreamers, the originators of thought. It was Kipling who said that despite the size, and the power and weight of our machines, they are nothing more than the children of our brains. So, remember that, and go on and dream. ■



ENCOUNTERS

Planetary Survey Hazards -adjust for climate/terrain

01-07	Fall, small/big
08-15	Sink, mud/plant/other
16-20	Pollen/Allergy/bodily reaction, small/big
21-25	Animal, friendly/not so friendly
26-30	Water
31-35	Insect/other
36-40	Tree, Turn and walk face into a tree branch or similar obstacle
41+	No hazard

Adjust % for more ideas.

Weather Hazards -monitored from orbit, with 20+minute warnings

1.	Rain/snow/sleet, light/torrential
2.	Winds, light/hurricane
3.	Firestorm, hot/blazing
4.	Dust/Particle storm, light/heavy
5.	Earthquake, d10 intensity, d10 seconds duration
6.	Tsunami/avalanche, local/widespread, portends nothing/more, light/heavy
7.	Sunny/overcast
8.	Cold/warm
9.	Summer/Winter
0.	Nice and Sunny

Animal Encounters

Weapon

1 - 2	Claw/talon
3 - 4	Fang/tooth
5 - 6	Horn/spike
7 - 8	Hoof/foot
8 - 9	Stinger/proboscis
0	Roll 1d10, if 1 or 10, roll again. again. If 1 or 10 again, PSI monster or similar nightmarish horror. Otherwise re-roll normally

Defense

1 - 2	Tough hide
3 - 4	Tail/appendage
5 - 6	Projectiles, scent or quills
7 - 8	Color/shape
9	Speed
0	Roll 1d10, if 1 or 10, roll If 1 or 10, PSI monster or or similar nightmarish horror. Otherwise re-roll normally

Dice	NPC Encounter Reactions*
< 05	Violently Hostile, Immediate attack
06 - 25	Hostile, Immediate Reaction
26 - 45	Uncertain, but 55% likely negative
46 - 55	Neutral / Uncertain / Disinterested
56 - 75	Uncertain, but 55% likely positive
76 - 95	Friendly, Immediate Aid
96 >	Friendly, Enthusiastic Acceptance

* As cribbed TSR AD&D 1stEd DMG, p63

ALIEN CREATURE RECORD

Name:

Life Form: Size: Feeding Habits:

Attributes:

STR END DEX MENT

(For Intellegent Races Only) INT CHA LUC PSI

Tactical Movement and Combat Statistics:

AP Combat Skill Rating Damage Armor

General Description:

ALIEN CREATURE RECORD

Name:

Life Form: Size: Feeding Habits:

Attributes:

STR END DEX MENT

(For Intellegent Races Only) INT CHA LUC PSI

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AP Combat Skill Rating Damage Armor

General Description:

ALIEN CREATURE RECORD

Name:

Life Form: Size: Feeding Habits:

Attributes:

STR END DEX MENT

(For Intellegent Races Only) INT CHA LUC PSI

Tactical Movement and Combat Statistics:

AP Combat Skill Rating Damage Armor

General Description:

WORLD AND CIVILIZATION REPORT

System Name ____________________
Number of Class M Present (D100 Roll) __________

01–90 = 1 Class M World
91–97 = 2 Class M Worlds
98–00 = 3 Class M Worlds

World Name ____________________
Position in System (D10 Roll) __________
Number of Satellites (D10 Roll) __________
Planetary Gravity ($\frac{1D10-5}{10}$) __________ G
Planetary Size:
Diameter __________ km
Equatorial Circumference __________ km
Total Surface Area __________ km²
Percent Land Mass (D100 Roll) __________ %
Total Land Area __________ km²
Planetary Conditions:
Length of Day (14 - 2D10) ____ hours
Atmospheric Density (D10 Roll) ____
General Climate (D100 Roll) ________

1–2 = 0 Satellites
4–6 = 1 Satellite
7–8 = 2 Satellites
9 = 3 Satellites
10 = 4 Satellites

Diameter = 13,000 km x gravity
Circumference = 40,000 km x gravity
Total Surface Area = 510,000,000 x gravity

Total Land Area = Total Surface Area % Land Mass

1–2 = Thin Atmosphere
3–8 = Terrestrial Atmosphere
9–10 = Thick Atmosphere

01–15 = Desert Climate
16–35 = Tropical Climate
36–60 = Warm Temperate Climate
61–85 = Cool Temperate Climate
86–00 = Arctic Climate

Code: ____________________ – ____________
(1) (2) (3) (4) (5) (6) (7) (8)

Mineral Content (D100 - 2 Roll):
Normal Metals __________
Radioactives (– 20) __________
Gemstones (– 30) __________
Industrial Crystals (– 40) __________
Special Minerals (– 35) __________

Dominant Species Name
Lifeform Category:
Sentient? Y/N

%DICE		
	01-03	microorganisms
	04-07	plants
	08-14	insects
	15-20	fish
	21-30	amphibians
	31-40	reptiles
	41-50	avians (birds)
	51-95	mammals
	96-00	special

Technological Index
Space Science Index (D10 - 4) ________ (1)
Physical Science Index (D10 - 2) ________ (2)
Engineering Index (D10 - modifier) ________ (3)
Planetary Science Index (D10 - modifier) ________ (4)

Life/Medical Science Index (D10 - modifier) ________ (5)

Psionics Index (D10 - modifier) ________ (6)

Sociopolitical Index

Social Science Index (D10 - 3 - modifier) ________ (7)
Cultural Attitude Index (D10) ________ (8)

Species Modifiers

STR	INT	CHA	LUC
END	DEX	COOL	PSI

Notes

Modifiers for Engineering Index and Planetary Science Index

Physical Science Index	0-1	2-3	4-5	6-7	8-9	A or more
Modifer	−2	−1	0	+1	+2	+3

Modifer for Life/Medical Science Index

Engineering Index	0-1	2-3	4-5	6-7	8-9	A or more
Modifer	−2	−1	0	+1	+2	+3

Modifer for Psionics Index

Life/Med. Science Index	0-1	2-3	4-5	6-7	8-9	A or more
Modifer	−2	−1	0	+1	+2	+3

Modifer for Social Science Index

Space Science Index	0-4	5-6	7-8	9 or more
Modifer	0	+1	+2	+3

OTHER DATA

ALIEN ATTRIBUTE GENERATION TABLE

SIZE (ROLL DIOO)

		TINY 01-03	VERY SMALL 04-15	SMALL 16-36	MEIDUM 37-64	LARGE 65-85	VERY LARGE 86-97	HUGE 98-00
AMORPHOUS 01-05	STR Roll	D10	D10+8	3D10 + 5	3D10 + 20	3D10+45	3D10 + 70	D100 + 80
	END Roll	2D10	4D10+1Q	4D10 + 40	4D104-80	4D10 + 125	4D10+170	D100 + 225
	OEXRoll	D100	D100	D100	D100	D100	D100	D100
	Armor Roll	—	D10-5	D10	D100-4	D100-4	D100-2	D100-2
	Damage Roll	D10-3	D10-3	D10	D10	D10+3	2D10	3D10
INSECT 0&-20	STR Roll	2D10	4D10 + 10	4D10 + 40	4D10 + 80	4D10 + 125	4D10+170	D100 + 225
	END Roll	2D10	4D10 + 10	4D10 + 40	4D10 + 80	4D10 + 125	4D10-M70	D100 + 225
	DEXRoll	4D10 + 65	4D10 + 60	4D10 + 55	4D10 + 50	4D10 + 35	3D10 + 30	3D10+15
	Armor Roll	—	D10-5	D10	D10 + 5	D10-f15	D10 + 25	D10 + 35
	Damage Roll	D10-3	D10	D10 + 3	2D10	3D10	4D10	5D10
FISH 21-35	STR Roll	D10	2D10 + 5	3D10+10	3D10+30	3D10 + 60	3D10+90	D100+100
	END Roll	2D10	3D10 + 15	3D10 + 40	3D10+70	3D10 + 115	4D10+160	D100+175
	DEXRoll	4D10+40	3D10 + 40	3D10+35	3D10 + 30	3D10 + 25	3D10+20	3D10+15
	Armor Roll	—	D10-5	D10	D10 + 5	D10+10	D10 + 15	D10 + 20
	Damage Roll	D10-3	D10-3	D10	D10 + 3	2D10	2D10 + 3	3D10
AMPHIBIAN 36-50	STR Roll	D10	2D10 + 5	3D10+10	3D10 + 30	3D10 + 60	3D10 + 90	D100+100
	END Roll	D10	2D10 + 5	3D10 + 10	3D10 + 30	3D10 + 60	3D10 + 90	D100+100
	DEXRoll	D100 + 60	D100 + 40	D100 + 30	4D10 + 30	4D10 + 20	4D10+15	4D10 + 5
	Armor Roll	D10-8	D10-7	D10-6	D10-5	D10-4	D10-3	D10-2
	Damage Roll	D10-3	D10-3	D10	D10 + 3	2D10	D10 + 15	3D10
REPTILE 51-65	STR Roll	D104-2	3D10	3D10+15	3D10 + 40	4D10 + 70	4D10+100	D100+140
	END Roll	D10	2D10 + 5	3D10 + 10	3D10 + 30	3D10 + 60	3D10+90	D100 + 100
	DEXRoll	3D10 + 35	3D10+30	3D10 + 30	3010+30	3D10+20	3D10 + 5	3D10-5
	Armor Roll	—	—	D10-5	B.10	D10 + 5	D10 + 10	D10 + 15
	Damage Roll	D10-3	D10-3	D10	D10 + 3	2D10	2D10 + 3	4D10
BIRD 66-75	STR Roll	D10	D10+8	3D10 + 5	3D10 + 20	3D10 + 45	3D10 + 70	D100 + 80
	END Roll	D10-2	2D10	2D10 + 5	2D10 + 15	2D10 + 35	3D10 + 50	D100 + 60
	DEXRoll	3D10 + 40	3D10 + 35	3D10 + 35	3D10 + 35	3D10 + 30	3D10 + 25	3D10 + 20
	Armor Roll	—	—	—	—	—	D10-9	D10
	Damage Roll	D10-3	D10-3	D10	D10	D10 + 3	2D10	3D10
MAMMAL 76-95	STR Roll	D10	2D10+5	3D10 + 10	3D10-f30	3D10 + 60	3D10 + 90	D100+100
	END Roll	D10	2D10 + 5	3D10 + 10	3D10 + 30	3D10 + 60	3D10 + 90	D100+100
	DEXRoll	3D10+10	3D10+20	3D10 + 25	3D10+30	3D10 + 20	D10+5	3D10-5
	Armor Roll	—	—	—	D10-5	D10	D10+5	D10-I-10
	Damage Roll	D10-3	D10-3	D10	D10 + 3	2D10	2D10 + 3	3D10

TECHNOLOGICAL INDEX CLASSIFICATIONS

Space Sciences Index

Rating	*Accomplishment*
0	No accomplishment
1	Star recognition; constellations; basic astronomy and navigation
2	Recognition of other planetary bodies
3	Solarsystem mechanics; planetary motion
4	Relativity; celestial mechanics; stellar evolution
5	Basic astronautics; unmanned space probes; radio astronomy
6	Manned spaceflight; interplanetary piloting; environment suits
7	Manned interstellar probes
8	Impulse drive; sublight-speed vehicles
9	Warp drive; faster-than-light vehicles; advanced astrogation

Engineering Index

Rating	*Accomplishment*
0	No accomplishment
1	Rudimentary toolmaking; shelter building
2	Basic metallurgy; pulleys; complex levers; windmills and water wheels
3	Basic mechanics; steam power; flood control and hydroelectric power
4	Reciprocating engines
5	Heating and cooling systems; heavy machinery
6	Transistors and basic electronics, including computers
7	Advanced microcircuits and computertechnology
8	Micromolecularcircuitry
9	Atomic-level circuitry; gravity control technology

Life/Medical Sciences Index

Rating	*Accomplishment*
0	No accomplishment
1	Basic herbal medicine; cultivation of plants
2	Basic anatomy; animal husbandry; basic microscopy; cell theory
3	Basic physiology; detailed anatomy; blood and tissue typing
4	Basic genetics; microbiology; nitrogen cycle; routine surgery
5	Bacteriology and immunology; hybridization; basic hydroponics
6	Basic DNA and gene research; basic artificial limbs and organs
7	Gene surgery; advanced bionics and organ transplants; food synthesis
8	Portable medical scanners; cloning
9	Propoplaser surgery; major nerve regeneration

Physical Sciences Index

Rating	*Accomplishment*
0	No accomplishment
1	Control of fire; recognition of solid, liquid, gaseous states
2	Complex optics; rudimentary chemistry
3	Laws of motion; classification of compounds
4	Basic electricity; discovery of chemical elements
5	Radio communication; x-ray theory; atomic theory; organic chemistry
6	Atomic fission; microwave theory; electron microscopy
7	Controlled fusion; laser technology; heavy element chemistry
8	Subspace radio theory; advanced catalyst chemistry
9	Transporter theory; phaser technology; transmutation of elements

Planetary Sciences Index

Rating	*Accomplishment*
0	No accomplishment
1	Recognition of weather cycles and seasons
2	Empirical weather prediction; mineral and ore recognition
3	Classification of basic minerals and fossils; basic geologic history
4	Basic scientific meteorology; hydrologic cycle; water wave motion
5	Basic earthquake prediction and weather modification
6	Harnessed geothermal energy;
7	Gravity control; ecological control and enforced ecological balance
8	Planetary weather and climate control; crustal stress relief
9	Terraforming

Psionics Index

Rating	*Accomplishment*
0	No accomplishment
1	Psi activity largely unrecognized or unknown
2	Psi activity recognized, but only rare cases; no understanding
3	Psi activity documented in selected individuals; no understanding
4	Psi activity widely recognized; rudimentary understanding of use
5	Psionics measured in many; basic psionic theory understood
6	Psionics seen as conservable resource; widespread psionic research
7	Rudimentary training provided to psionically-gifted individuals
8	Psionics cultivated in all; widespread basic training provided
9	Widespread acceptance and use; extensive psionictraining provided

Equipment

In this section, description of many common pieces of Federation Star Fleet issue equipment will be provided, including data on how to incorporate the equipment into your campaign. Although the equipment under discussion specifically is Federation issue, where similar equipment is available to non-player races the differences in such equipment will be mentioned.

ANTIGRAV, PORTABLE: Small hand-held devices with magnetic clamps or sticky pads. These units are attached to heavy equipment for moving it easily from place to place by neutralizing it's weight. A single antigrav can analyze and exactly compensate for up to 100 kilograms (about 220 lbs.) of mass. Several antigravs may be attached for more massy items. Antigravs cannot be set to produce a negative gravity effect. Objects attached to them have no effective weight, though, and can be suspended in mid-air, unsupported.

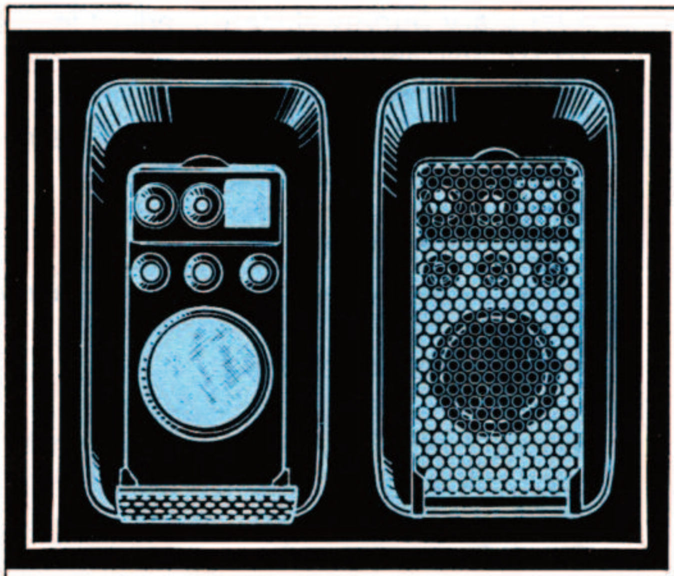
AQUALANTERN: A small hand-held light source that can be safely used underwater. Illuminates an area 10 meters cubic.

BELT LIGHT: A light source used by landing parties that fits around the waist as a belt, shining a light ahead of the wearer about 100 meters. These lights are useful because they illuminate while leaving hands free for other operations.

COMMUNICATOR. A palm-size voice transmitter/receiver used by Federation Star Fleet personnel, especially on landing parties. A Federation communicator looks like a small black box with a flip-open lid that serves at the unit's antenna grid. The voice circuit is automatically opened (with a characteristic soft beeping sound) when the grid is flipped up.

The communicator can be used on a planet's surface over line-of-sight distances, or to contact a ship in standard orbit. The maximum range of the communicator is about 16,000 miles (about 26,00 kilometers). The signal may be blocked by atmospheric disturbance, intervening terrain (like mountains), or dense materials. Communicators are not usually used aboard ship because strategically placed communications panels are more convenient.

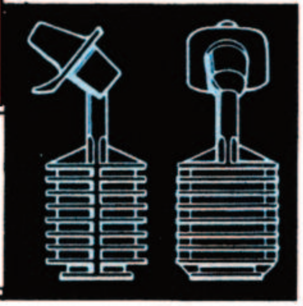
Several channels are available on a Federation communicator, and one can select which other communicators to call. If a communicator is signaled, it beeps for attention.



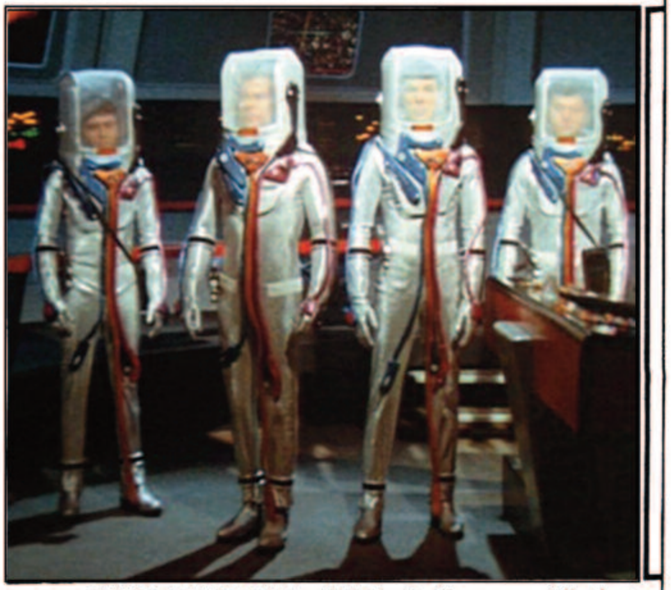
The Federation communicator also serves as a locating device for operation of the transporter. A communicator can be triggered to send a homing signal as well. The communicator also can be plugged in with other equipment to send data from portable data-gathering instruments to the ship for processing by the ship's computers.

Most starfaring cultures use a similar device to the Federation communicator. The Klingon version (used also by the Romulans, in a slightly different form) combines some of the functions of the Federation communicator and the Tricorder, in that it is capable of scanning for nearby energy sources (See TRICORDER).

EARPIECE RECEIVER: Used on the bridge and in engineering areas of larger ships, the earpiece receiver is a small earphone (molded especially to fit a crewperson's ear comfortably) which allows private reception of voice transmissions without distracting outside noise. The receiver is wireless, but has very little range and is never used out of the sight of a communications panel. These are most often worn by communications officers on duty.



Earpiece Receiver



ENVIRONMENTAL SUIT: A "space suit" that maintains a self-contained artificial environment—air, heat and pressure—for up to 24 hours. The suit is used where maximum protection is required, and is safe for vacuum, environments with unlivable heat or cold, or poisonous atmospheres. The helmet is transparent all around, affording a clear 360 degrees view for the wearer.

Environmental suits are not particularly uncomfortable, but they are a bit bulky and require a bit of training to use properly. A skill level of 10 or more in Environmental Suit Operations is necessary to use one. With that skill level, normal tasks can be performed. To run, jump, fight, or do anything strenuous or requiring manual dexterity while wearing a suit, one must make a standard saving roll on the Environmental Suit Operations skill level. Failure indicates the action attempted has failed in some manner.

Environmental suits are self-sealing – it would be difficult to tear one. In fact, a standard spray hypo can be used right through the sleeve! The suits are no protection against modern energy weapons. Klingons, Romulans and other starfaring cultures can be assumed to have similar suits.

FORCE FIELD BOX: A special box with an interior force field that can be used to transfer and transport antimatter samples. The interior field can be switched on and off by remote control.

I.D. CARD: A small plastic card (the size of a credit card) with a small holographic picture of the bearer and molecularly coded information about the user. These are used to activate security locks on most Federation vessels and to provide other data about the bearer quickly (retina patterns, blood type, medical history, security clearances, etc.) These cards are made by the ship's computer and are very difficult to forge, but one could be altered by someone with the right tools and skills. (Requires a Forgery skill saving roll at a +30 penalty to the roll, plus electronic erasure and inscribing tools to change the existing information on an I.D. card.)

LIFE SUPPORT BELT: A wide, thick belt that provides a glowing greenish-yellow force field around the wearer for up to 4 hours. A person in the field is provided with air, heat, and pressure in space, hostile environments, and underwater. Not bulky like the environmental suit, the belts are still somewhat experimental. Their main drawback (aside from the fact that it is impossible to hide while wearing one because of the glow) is their vulnerability. A major impact (one doing over 10 points of damage) can cause the belt to malfunction and fail. Thus, they are not to be used in combat situations. So far, these units are only in use by Federation personnel on board larger ships, such as the U.S.S. Enterprise.

LIFE SUPPORT MASK: Breathing masks worn where bulkier or more fragile life support equipment is not needed. These can be used to remedy the effects of thin or thick atmospheres, to filter out harmful substances in the air, or whenever protection from airborne contaminants is necessary. The masks filter and adjust pressure, powered by a tiny energy cell that needs to be recharged or replaced only about once a month. The masks will not provide oxygen where there is none, however.

PSYCHOTRICORDER: This complex scanning device is about the size of a breadbox, and can only be used by a qualified technician. (Appropriate Psychology skill 50+, and Computer Operation skill 40+.) Its function is to scan the mind of the subject to obtain a detailed account of what the subject experienced during the past 24-48 hours.

The results of a psychotricorder scan are always 100% correct, but getting a good scan can be difficult. The operator and subject must be alone in a quiet place with no distractions. Successful saving rolls must be made on both the Psychology and Computer Operation skills at a penalty of +20 to the roll, or no information is gathered. According to Federation law, the subject must agree to the test, but once begun the true experiences will come out, despite any mental effort by the subject to conceal them.

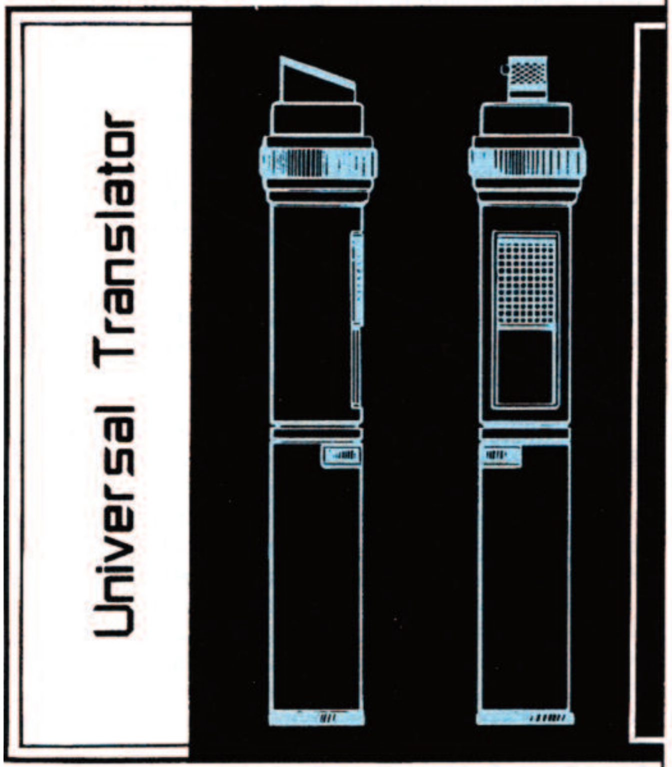
The psychotricorder is a fairly recent development of Federation technology. It is believed that no other known starfaring group possesses a similar device.

SUBCUTANEOUS TRANSPONDER: This is a miniature transmitter which acts as a homing signal and a transporter lock-on aid in the same way as the communicator (though it cannot be used for voice communication). The device is inserted just below the skin, and is used by landing parties in possibly hostile areas where standard communicators might be confiscated, or where such devices would look too out of place.

The subcutaneous transponder has the same range as a communicator. These are also still in the semi-experimental stage, and are only in use aboard larger exploration and military vessels. A sharp blow (10 points or more of damage) to the area of insertion (usually the arm) will disabe the transponder unless a LUC saving throw is made successfully by the wearer. A qualified doctor (Medicine skill 40+) is required to insert them, but they can be removed safely by anyone with a small penknife without significant harm.

TRICORDER: See separate rules material at the end of this section.

UNIVERSAL TRANSLATOR: A hand-held device looking much like a flashlight with a microphone grid at one end. This unit contains a sophisticated linguistics computer capable of translating most alien languages spoken by humanoids. The translator must "listen to" enough of a totally new language to get the general idea of syntax, word meanings, etc. Usually, a half hour is sufficient, and this may be accomplished before leaving the ship if broadcasts can be picked up or conversations can otherwise be recorded.



Universal Translator

In many cases, however, a humanoid language that is similar in structure to a known language can be translated almost immediately. Even some non-humanoid tongues can be translated by this device, as long as the language is sound-based, rather than communicated by flashing lights or waving tentacles.

In the game, a roll of 30 or less on % dice means the language can be immediately translated. This gets easier by 10 points for each half-hour of conversation the device "overhears" or is fed in advance. A 10 point penalty is in effect if the language is spoken by a non-humanoid species.

The ship's linguistic computer banks can translate virtually any tongue in a matter of minutes. If this translation has taken place before a landing party is beamed down, the structure for the language will already be programmed into their hand-held translators when they beam down.

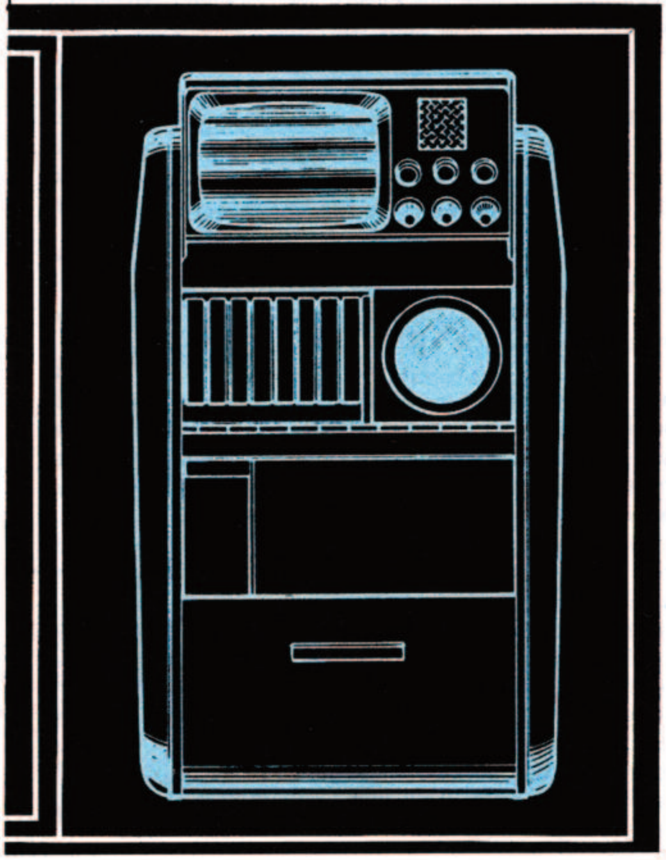
TRICORDERS

The tricorder is the most versatile and widely-used data gathering and recording mechanism in the known galaxy. It is an invaluable tool for gathering information about one's immediate environment.

There are two major types of tricorder in widespread use on Star Fleet vessels—the MEDICAL TRICORDER and the SCIENCES TRICORDER. Both behave similarly, but are designed for different types of scanning.

Both the above types of tricorder will serve as simple sight-and-sound recorders, useful for making supplementary log entries, recording the observations of a landing party on the scene, or gathering evidence about a location for later viewing aboard ship. The tricorder can be set to record automatically, and can store up to 2 hours of continuous sight-and-sound data on each of the 8 molecular memory discs normally installed in it.

Tricorders can also scan for various types of specialized data (depending on the type of tricorder used). A quick 360-degree scan takes two full combat turns (about 20 seconds). A scan in a particular direction only takes one combat turn (10 seconds). The tricorder operator must first state what type of scan is being made, then attempt a saving roll on his/her Computer Operation skill level. If the roll is made successfully, the gamemaster gives the information revealed by the scan. If not, the readings are fuzzy and the operator may try again.



The range and exact performance of the tricorder depends on the type of tricorder and what type of scan is being made. More information is given in the data below on the individual types of tricorder.

Though the tricorder is not extremely delicate, it is possible to render one inoperative with rough treatment. If a character carrying a tricorder falls down, is shot by anything other than a stun weapon, or is attacked physically and knocked to the ground, roll 1D10. On a roll of 1, the tricorder is damaged and becomes inoperative. An inoperative tricorder can be repaired in the field 50% of the time (roll % dice) by a person with the Small Equipment Technology skill (if the person makes the appropriate saving roll, and is carrying basic tools). Otherwise, it must be returned to the ship for repairs. If return to the ship is necessary, there is a 50% chance that the tricorder is so badly damaged that data it was carrying is lost.

SCIENCES TRICORDER: Data pickups for the sciences tricorder are located in the flip-open top of the unit, which also houses main controls, data lights, and the video display. The sciences tricorder makes three basic types of scans, with several sensitivity levels available for each.

Energy Sources: A general scan for energy sources will reveal any major source of power within 1000 meters. If one is found, a second successful scan will pinpoint it's general direction. As long as the source continues output, the tricorder will lead the user to the source with no further die rolls necessary. Once within 100 meters, a specialized scan may be made to determine the type of energy being used (atomic power, fusion reactors, electrical generators, stored battery power, etc.). If used adjacent to machinery, an even narrower scan will pinpoint from what source the machinery draws power (power cables, wall socket, internal battery, solar energy, etc.)

Physical Composition: A general scan may be made for the nearby presence of concentrations of one particular substance. (The substance must be specified at the time of the scan). If the scan is successful (and if the substance is present in quantity within 1000 meters), the presence and approximate distance of the deposit will be revealed. A second successful scan will reveal the direction. Within 100 meters, an object may be scanned to determine it's general composition (that is, the substance it is primarily made of). Once adjacent to an object (within 1½ meters), the complete chemical composition of an object can be scanned. Only known substances will be analyzed in this manner. Unknown substances will be noted as unknowns.

Life Forms: The presence of other life forms will be detected by a life forms scan, within a maximum range of 500 meters. A second scan will tell direction and approximate distance. Once within 100 meters, the number of individual life readings and their general type can be determined. (The tricorder could make out three humanoid forms at this distance, but could not tell if they were Klingons, Romulans, or humans. More precise data requires the use of a medical tricorder.)

MEDICAL TRICORDER: The medical tricorder has scanning heads similar to the sciences tricorder and also has a small hand-held sensor attached by a cable that can be used for finer control. The medical tricorder will give more detailed information on chemical composition and life form readings than the sciences tricorder, but it does not possess the sciences tricorder's range or versatility.

Chemical Composition: The presence of a substance and its general direction and distance can be determined at 100 meters or less in a similar manner to the sciences tricorder's physical composition scan as detailed above. Within 1½ meters, however, the medical tricorder will determine the chemical composition of a sample, plus give data on that substance's effects on various life forms. For instance, the medical tricorder can scan a plant and determine if it is poisonous, or if it is likely to be nutritious for humans.

Life Forms: The life forms scan of the medical tricorder does not have the range of the sciences tricorder, but it gives more detailed information. Within 10 meters it can identify any known life form and give considerable biological data even about an unknown form. If used within 1½ meters, complete medical data (similar to that given by the diagnostic bed) can be ascertained. In addition, the medical tricorder can detect the presence of foreign materials in the bloodstream, determining if a being has been poisoned or drugged.

As usual, other creative uses for the tricorder may be explored by players and gamemasters, bearing in mind that the tricorder is an inherently limited device. Analysis of samples taken aboard ship will give much more accurate and detailed information about most substances than tricorder readings.

GUIDE TO EQUIPMENT

This section provides average costs and prices in Federation credits for common vehicles, weapons, and equipment that traders would find useful in the course of their travels. The prices given are average retail prices one would expect to pay on an urbanized planet such as Terra or Andor, not those one would pay for trade goods.

Prices should be adjusted according to the local situation. Starport prices will often be up to 50 percent higher than listed. Sophisticated technical equipment will be from 50 to 100 percent higher on a non-urbanized, non-technical world. Agricultural products will be 25 to 50 percent higher on worlds where agriculture is inhibited by local conditions.

LAND VEHICLES

Automobiles, Trucks, Motorcycles, Vans

This type of land transport is used little on urbanized planets such as Earth, which normally have extensive mass-transit systems or use A-grav or GEV vehicles. Land Vehicles are still in use on many less-urbanized planets in the outer reaches, where the market for used vehicles has grown to be extensive. Most modern ground vehicles are powered by micro-fusion packs, and are totally emission-free. The farther away one gets from the more modern planets, however, the more likely one is to find battery, solar, or even fossil-fuel vehicles.

LAND VEHICLE COSTS	
Automobile, Compact (4-Passenger)	8,000 Cr
Automobile, Mid-size (5-passenger)	10,000 Cr
Automobile, Full-size (6-passenger)	13,000 Cr
Automobile, Luxury (4- to 7-passenger)	18,000 Cr
Automobile, Sport (2-passenger)	15,000 Cr
Delivery Truck (2-passenger, light cargo)	14,000 Cr
Motorcycle (2-passenger)	1,500 Cr
Pick-up Truck (3-passenger, light cargo)	10,000 Cr
Recreational vehicle (6-passenger, light cargo)	16,000 Cr
Semi-tractor, trailer (3-passenger, heavy cargo)	40,000 Cr
Van (9-passenger, light cargo)	12,000 Cr

A-Grav Vehicles

The A-grav vehicles are high-technology devices, requiring a high-tech environment for repairs. This can be a high-tech planet where repairs would be generally available, or it can be a trader who happens to visit a planet occasionally with parts and/or services. A-gravs are generally found closer to the hubs of highly developed areas. A-gravs operate nap-of-earth, that is, they follow the contours of the terrain below them. Most A-gravs are not powerful enough to operate higher than tree-top level. Because of their method of travel, A-gravs are not hindered by terrain features, as are other types of vehicles. A-gravs are in wide service in most high-tech military organizations, as they make excellent scouting vehicles.

A-GRAV VEHICLE COSTS	
A-grav, Compact (4-passenger)	16,000 Cr
A-grav, Midsize (5-passenger)	20,000 Cr
A-grav, Full Size (6-passenger)	26,000 Cr
A-grav, Luxury (6-passenger)	36,000 Cr
A-grav, Sports (2-passenger)	32,000 Cr
A-grav, Light Truck (3-passenger, light cargo)	20,000 Cr
A-grav, Cycle (2-passenger)	8,000 Cr
A-grav, Van (9- passenger, light cargo)	24,000 Cr

All-Terrain Vehicles

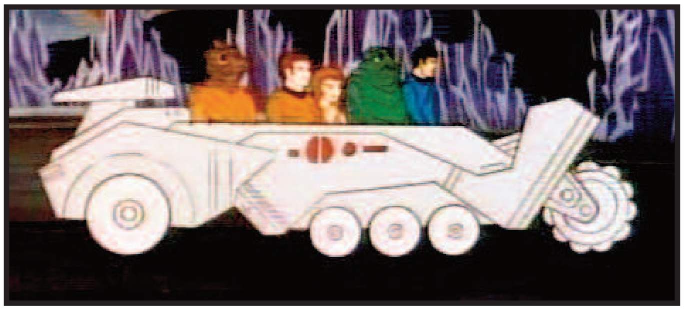
These rugged, micro-fusion powered vehicles come in both wheeled and tracked versions and are used for sport and for light work. The smaller models have little cargo capacity, being meant for two passengers and little personal equipment. The larger models can carry large payloads, depending on bulk and mass of the payload and on the terrain being traversed.

ATV COSTS	
ATV, small (2-passenger)	2,500 Cr
ATV, medium (4-passenger, light cargo)	9,500 Cr
ATV, large (4-passenger, heavy cargo)	15,500 Cr

Ground Effect Vehicles

These are popular on most medium-technology worlds, where A-Grav technology is scarce and the older style land vehicle is almost obsolete. Ground-effect vehicles ride on a cushion of air over land or water. Though they are capable of traversing most terrain, heavily overgrown or extremely rugged terrain does pose problems.

GEV COSTS	
GEV, Compact (4-passenger)	12,000 Cr
GEV, Midsize (5-passenger)	15,000 Cr
GEV, Full-Size (6-passenger)	20,000 Cr
GEV, Luxury (6-passenger)	27,000 Cr
GEV, Semi-tractor (heavy cargo)	60,000 Cr
GEV, Sports (2-passenger)	18,000 Cr
GEV, Truck (3-passenger, light cargo)	15,000 Cr
GEV, Van (9-passenger, Medium cargo)	17,000 Cr



WATER VEHICLES

Row Boat

These are made of high-strength, low-weight materials, such as stressed carbon fiber, for durability and ease of operation. A rowboat holds up to four persons, or 360 kilograms, depending on use. It is often equipped with a small electric motor. Unlike older fossil-fueled models, this motor uses a rechargeable, detachable powerpack that provides up to five hours use at moderate speeds. Top motorized speed is 55 kilometers per hour.

Canoe

Constructed similarly to the row boat, the canoe holds up to 200 kilograms, including passengers. More maneuverable and lighter than a row or motor boat, the canoe's versatility is borne out by the fact that it can be carried by one person over rough terrain.

Rubber Raft

Made of stress-tested elastic materials, this model folds up small enough to be carried in a backpack. The raft holds up to 180 kilograms when inflated using a small inflation cartridge of compressed gas.

Power Boats

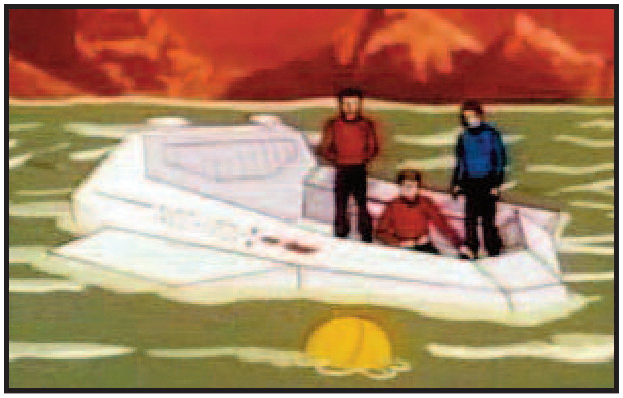
A power boat is a small fishing or skiing craft, capable of holding up to 495 kilograms. Its top speed is 75 kilometers per hour. In contrast, a speed boat is a very fast, high-performance craft designed for speed and little else. Capable of carrying up to 180 kilograms, its top speed is 145 kilometers per hour.

Air Boat

Also known as a swamp buggy, this is a flat-bottomed boat that skims the surface of water, swamp, mud, and so on. The vehicle is driven by a large, airplane-type propeller mounted in back. It carries up to 225 kilograms, and its top speed is 45 kilometers per hour.

Hydrofoil

The hydrofoil is an extremely fast speedboat with great maneuverability. Once moving at two-thirds maximum speed, the front of the vessel rises from the water on ski-like foils or runners that serve to minimize drag. It carries up to 337 kilograms, and has a top speed of 175 kilometers per hour.



Houseboat

A flat-bottomed boat with living quarters, it is usually used for recreation purposes. There are sleeping accommodations for up to six persons. Top speed is 30 kilometers per hour.

Submarines

Two-man submarines are often used for oceanographic studies or recreational purposes in water of medium depth. Four-man submarines are more durable and capable of attempting deeper dives. They are used in undersea archeological exploration or underwater salvage operations.

WATER VEHICLES COSTS

Row Boat	300 Cr
Motor for row boat	600 Cr
Canoe	300 Cr
Rubber Raft	100 Cr
Inflation cartridge for raft	10 Cr
Sport Boat	5,000 Cr
Speed Boat	10,000 Cr
Air Boat	4,000 Cr
Hydrofoil	20,000 Cr
Houseboat	20,000 Cr
Submarine, 2-man	50,000 Cr
Submarine, 4-man	85,000 Cr

AIR VEHICLES

Hang Glider

This is a one-man glider, usually launched from a height or towed aloft. Its silent, motorless operation and maneuverability make it useful for some types of commando actions, though it is usually flown for sport.

Ultra-Light

This is basically a powered hang-glider, though some more closely resemble true airplanes. They are one-man propeller-driven vehicles, often powered by a small fusion pack or rechargeable electric motor.

Passenger-Carrying

Propeller-driven aircraft are used mostly for sport on high-tech worlds, though they may still be found in serious service on some planets. Jets are even scarcer, with most planets having banned them back in the fossil-fuel days in favor of rapid-transit systems circling the planet. Helicopters are still in use in most areas, with power provided by fusion packs or rechargeable motors.

AIR VEHICLE COSTS

Hang Glider	300 Cr
Ultra-light	1,000 Cr
Private Plane, Two-Seat	15,000 Cr
Private Plane, Four-Seat	25,000 Cr
Private Plane, Six-Seat, Two Engine	45,000 Cr
Private Jet, Six-Seat, Two Engine	150,000 Cr
Private Jet, Ten-Seat, Two Engine	225,000 Cr
Helicopter, Single Seat	10,000 Cr
Helicopter, Two-Seat	28,000 Cr
Helicopter, Four-Seat	90,000 Cr

SPACE VEHICLES

Shuttlecraft

A small shuttle is a four-seat vehicle capable only of jumps from planetary surface to orbital sites and reverse. These are often carried aboard privately owned craft for such excursions. Not suited for planetary exploration in most cases, they are not equipped for landings in rough terrain. In addition, Star Fleet standard shuttlecraft are for sale, new and used. New shuttlecraft are available directly from the manufacturers' outlets, and used models are available on the occasion when newer vessels are coming into service and older units are being replaced.

One-Man Repair Bug

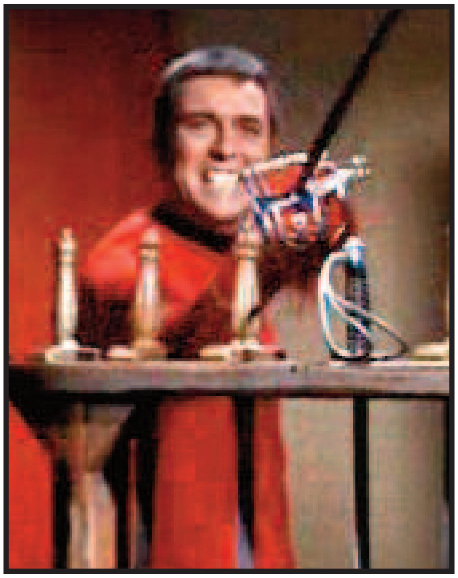
Small craft incapable of atmospheric landing. These are in use by Star Fleet at all repair facilities and large space facilities. Equipped with "Waldoes" (mechanical manipulator arms) with a variety of tool operations.

SPACE VEHICLES COST	
Small Shuttle	500,000 Cr
Shuttlecraft, Star Fleet Standard Design, Used	350,000 Cr
Shuttlecraft, Star Fleet Standard Design, New	700,000 Cr
Repair Bug, One-Man, Used	65,000 Cr
Repair Bug, One-Man, New	100,000 Cr

Ancient Weapons

Ancient weaponry is generally available only as collector's items, or for sporting or athletic use on most technologically advanced worlds. On less advanced worlds, they are more available and, in many instances, are carried daily. On many worlds, the carrying of one of these is illegal. Those listed are functional models, with purely decorative models available at half the cost.

ANCIENT WEAPONS COST	
Pocket Knife	15 Cr
Belt Knife or Dagger	20 Cr
Throwing Knife	12 Cr
Foil	75 Cr
Sabre	100 Cr
Cutlass	120 Cr
Shortsword	150 Cr
Broadsword	200 Cr
Hand-and-a-Half Sword	250 Cr
Longbow	60 Cr
Compound Bow	150 Cr
Crossbow	200 Cr
Mace	225 Cr
Flail	175 Cr
Axe	45 Cr



Firearms

Firearms are mostly collector's items or used by sportsmen. Possession or use of operational firearms is a criminal act on many advanced worlds. Few Federation worlds allow the carrying of operational firearms in a loaded state for any purpose. Some worlds have banned them entirely.

FIREARM COSTS	
Revolver, Small-Caliber	100 Cr
Revolver, Large-Caliber	250 Cr
Automatic, Small-Caliber	150 Cr
Automatic, Large-Caliber	300 Cr
Rifle, Small-Caliber	150 Cr
Rifle, Large-Caliber	300 Cr
Rifle, Large-Caliber, High Power	500 Cr
Ammunition, Small-Caliber, per 50 rounds	2 Cr
Ammunition, Large-Caliber, per 50 rounds	15 Cr
Shotgun	200 Cr
Ammunition, Shotgun, per 50 rounds	12 Cr
Automatic Rifle (or Carbine)	400 Cr
Ammunition, Automatic Rifle, per 50 rounds	15 Cr
Submachine Gun	650 Cr
Ammunition, Submachine Gun, per 40-round clip	20 Cr
Machine Gun	1000 Cr
Ammunition, Machine Gun, per 1000-round belt	250 Cr

Laser Weapons

Old-fashioned laser weaponry is still to be found in some planetary backwaters, though they have mostly been replaced by the phaser on Federation worlds. Laser, phaser, and disruptor recharge packs operate in a similar manner, taking about 20 minutes for a full recharge on most models. They are not, however, interchangeable in use between types and models. Low-power non-lethal variations at half the price are available on most high technology worlds for sporting uses.

LASER WEAPONS COSTS

Laser, Hand	250 Cr
Laser, Hand, Recharge Pack	75 Cr
Laser, Rifle	500 Cr
Laser, Rifle, Recharge Pack	100 Cr

Phaser Weaponry

Phaser weapons are available for sale in some areas, although most Federation planets have made carrying phaser weaponry illegal without special permits. These are basically identical to Star Fleet issue, though those found for public sale do not have the overload feature. Many found for sale on frontier worlds are low-quality copies that fail to fire at the most inopportune time, or fail to take a charge after several uses.

Disruptor Weaponry

Disruptor weaponry is illegal within Federation boundaries, although it is for sale in the Triangle or on many frontier planets.

PHASER WEAPON COSTS

Phaser I-A	200 Cr
Phaser II-A	400 Cr
Phaser Rifle-A	550 Cr
Phaser I-B	300 Cr
Phaser II-B	500 Cr
Phaser Recharge Pack	100 Cr
Hand Disruptor-A	150 Cr
Disruptor Rifle-A	450 Cr
Hand Disruptor-B	200 Cr
Hand Disruptor-C	300 Cr
Disruptor Rifle-C	600 Cr
Disruptor Recharge Pack	100 Cr

Stunner Weapons

The Police Stunners used by law enforcement agencies on high-technology worlds are basically Phaser Is with only a stun setting; they use the phaser recharge pack. This weapon can be carried legally on most Federation planets, as it is not considered a deadly weapon. A stun club, on the other hand, is a flexible billy club that stuns on impact with a neural shock effect similar to a low-strength phaser stun shot. Useful for close combat and riot control, the stun club is a favorite of many police, bartenders, and bouncers. It is sturdy enough to be used to parry a blow from a fist or light hand-held weapons. The club uses a special long-life (about 100 uses) energy pack that is easily replaced.

STUNNER WEAPON COSTS

Police Stunner	150 Cr
Stun Club	100 Cr
Energy Pack	20 Cr

Medical Pouch

The medical pouch contains several spray dressings, a Feinberger, the same hypo kit as in the field kit, protoplaser types 1 and 2, laser scalpels, and other field surgery equipment. Twelve doses of the drugs found in the field kit are included, with twelve doses of Hyronaline, Masiform-D, and a neural paralyzer. All of this is contained in a roll-up pouch with pockets and carried in a bag equipped with a shoulder sling.

Feinberger

An easy-to-use, hand-held unit capable of giving the heart rate, blood pressure, respiration, and body temperature of a patient.

Heartbeat Reader

This is a more sophisticated model of the Feinberger, capable of more accurate, faster readings. Also equipped with a computer patch, capable of being connected to any standard computer input port.

Laser Scalpel

The laser scalpel is a small hand-held scalpel that cuts by use of a fine laser.

Protoplaser

The protoplaser heals wounds without the aid of sutures, stitches, and so on.

Dressing Sprayers

This device sprays plastic/synthetic "skin" over a wound, which stops superficial bleeding and contains an antiseptic and anesthetic agent. When the wound heals, the dressing is absorbed.

Medical Tricorder

The medical tricorder gives detailed biological and chemical readings on life forms.

Biocomputer

This is a portable unit for analyzing life form samples and processing biological data. The biocomputer can tie into a larger mainframe.

Hypo

This is a high-pressure pneumatic hypodermic syringe that injects drugs through the skin painlessly, without a needle. Drugs are contained in micro-injector vials.

MEDICAL EQUIPMENT COSTS

Field Kit	200 Cr
Medical Pouch	6000 Cr
Feinberger	50 Cr
Heartbeat Reader	150 Cr
Laser Scalpels	300 Cr
Protoplaser	450 Cr
Dressing Sprayer	50 Cr
20-Spray Charges	5 Cr
Medical Tricorder	400 Cr
Biocomputer	1000 Cr
Hypo	20 Cr
6-Dose Hypo Charges	
Light stimulant	2 Cr
Medium stimulant	4 Cr
Light sedative	2 Cr
Medium sedative	4 Cr
Heavy sedative	6 Cr
Coradrenaline	4 Cr
Dylovene	5 Cr
Hyronaline	20 Cr
Masiform-D	20 Cr
Neural Paralyzer	100 Cr
Sterilite	3 Cr
Tri-Ox Compound	2 Cr

MEDICAL EQUIPMENT

Most medical equipment can only be purchased by a licensed physician or medical technician, or with a physician's permission. Of course, there is always the black market.

Field Kit

The field kit contains spray dressing, Feinberger, and hypo with small drug supply, including six doses each of light and medium sedatives, light and medium stimulants, Coradrenaline, Dylovene, Sterilite, and Tri-Ox compounds. These items are carried in a small pouch with a fold-over top. The pouch is designed to be carried on a belt.

ENVIRONMENTAL GEAR

Thermal Oversuit

The thermal suit is heated for use in cold environments. It runs on an easily recharged powerpack that lasts 48 hours without recharging. Recharging takes three hours.

Temperature Compensational Oversuit

Complete with hood and half-face mask, the suit provides a comfortable temperature for the wearer in either hot or cold climates. It is powered for 48 hours by a rechargeable pack. The suit has air conditioning and heating units, but will not protect against vacuum or hostile atmospheres.

Filter Mask

This small, lightweight mask filters most harmful atmospheres. It is good for twelve hours without replacement of the filter unit.

Life Support Mask

The life support mask filters like the smaller mask, plus warms or cools atmospheres and pressurizes thin atmospheres. Its powerpack and filter are good for about twelve hours.

Air Pack

This is a lightweight pack of super-compressed breathing mixture, fitted with mask. It is good for six hours. Two can be worn on the back without slowing or hindering movement.

Skin Diving Gear

This includes mask, flippers, and other accouterments for skin diving, including buoyancy control belt.

Scuba Tank and Regulator

The scuba tank and regulator is an advanced system using multiple airpacks that operate for up to twelve hours underwater. It is very lightweight, with little or no restriction to the user's movement.

Gillpak

A gillpak, when used with a wetsuit for warmth, allows operation underwater almost indefinitely. Unlike Scuba gear, gillpaks produce no telltale bubble trail. The ultimate underwater diving device, the gillpak is carried on the back. It weighs only 60 kilograms.

Wet Suit

Used by divers, this suit provides warmth in cold waters. The suit has adjustable buoyancy-control packs, which enable the user to easily ascend or descend.

Snow Ski Set

The snowsuit set is made of lightweight, almost unbreakable duraplast, and coated with a special polymer coating for speed.

Tent

The basic two-man tent is available in a variety of colors, with waterproof insulated floor and insert netting. The tent folds to the size of a small briefcase, with collapsible poles and pegs and plasteel cable lines.

Pressure Tent

This unit, which will hold pressure in vacuum or hazardous atmospheres, is proof against most atmospheric corrosives as well. It has airlock-like flaps, but these are not convenient to use and take time to rig. A separate air processing unit is required to maintain pressure and/or filter harmful atmospheres. When stowed, the two-man pressure tent takes up twice as much room as the normal model, including the air processing unit, which is about the size of a box of facial tissues. The air unit is good for three weeks without the need to recharge its power pack and chemical filtering pack; recharging takes 24 hours.

Environmental Suit

The environmental suit provides a self-contained environment (air, heat, and pressure) for up to 24 hours. It is safe for vacuum and hostile environments. The helmet is completely transparent, providing an unobstructed 360-degree view.

CLOTHING

Normal Clothing

Prices given are for clothing items for a middle-class Federation family. High-class or high-fashion clothing would be 150 percent to 300 percent higher than the listed prices. Serviceable clothing can be purchased at 50 percent to 75 percent off the listed prices.

Rain Gear

This outfit includes coat, hat, overshoes, and a small waterproof bag that can be placed over equipment the size of a small briefcase. The gear is transparent. Due to the polymers used, water, mud, and so on will slide right off. The suit can be shaken dry in a matter of seconds.

CLOTHING COSTS

Leisure Clothing	50 Cr
Work Clothing	75 Cr
Dress Clothing	150 Cr
Leisure Footwear	15 Cr
Work Footwear	25 Cr
Dress Footwear	35 Cr
Light Jacket or Windbreaker	15 Cr
Heavy Jacket	40 Cr
Gloves, Heavy Duty, Insulated	15 Cr
Rain Gear	40 Cr

Seven-Man Collapsible Shelter

This shelter holds pressure just like the pressure tent, but the airlock flaps are more convenient in this size. It folds to the size and form of a backpack, to be carried by one person. An internal air processor and power supply maintain pressure, air conditioning, and lighting for up to six weeks on a microfusion power system, available as a replacement pack.

Water Purification Device

This is a pocket-sized device that will filter and purify one gallon of water every two minutes. It can purify 100 gallons of water before its chemical pack and filters must be replaced. Recharge kits are available.

Gas Or Oil Lanterns

Still used for illumination on some worlds, these produce a circle of light of six-meter radius. Gas or oil refills are available in modular, plug-in canisters; each lasts three hours.

Pocket Lantern

About the size of one's fist, these rechargeable units produce illumination for 24 hours without failing. They are capable of unidirectional (like a flashlight), semi-directional (like a lantern), or omnidirectional (like a light globe) illumination, with variable beam intensity. At high-intensity setting, the flashlight beam will dazzle someone at close range. They can also produce an illuminated area of 30-meter radius at high intensity. Some units have color caps attached for signaling.

Aqualantern

A small, hand-held light source that can be safely used underwater, it illuminates a ten-cubic-meter area.

Beltlight

A light source that is worn like a belt, it will shine a light ahead of the wearer about 100 meters, in a beam two meters wide. These are useful because they leave the hands free for other uses.

Coldlight Glowsticks

These disposable chemical packets (about the size of a pencil) emit a cold light of a greenish-white hue when struck sharply and then shaken. One will illuminate an area of six-meter radius for ten hours. They are easily carried in a pocket or pouch for emergency use.

Sleeping Bag

This lightweight sleeping bag folds to pocket size when not in use. It retains body heat very well, due to the advanced types of insulation.

Backpack

This backpack is constructed on a very lightweight modular framework of high-strength plastic. Its exterior is covered with easy-access pockets.

Computerguide Electronic Map

This is a computerized map display device that incorporates a small inertial tracker. If calibrated before leaving a known point and programmed with local maps, it will allow pinpoint accuracy in determining the user's current location. The battery pack lasts 30 days without recharging. Map programs may not be available for non-civilized areas, but the inertial tracker will still tell position relative to the user's starting point.

Magnetic Compass

Three-quarters of the civilized worlds have magnetic fields strong enough to make magnetic compasses useful. This model is very durable and extremely accurate.

ENVIRONMENTAL GEAR COSTS

Thermal Oversuit	75 Cr
Temperature Compensational Oversuit	200 Cr
Environmental Suit	2,500 Cr
Filter Mask	30 Cr
Filter replacements	2 Cr
Life Support Mask	100 Cr
Replacement packs	10 Cr
Air Pack	100 Cr
Skin Diving Gear	50 Cr
Scuba Tank and Regulator	200 Cr
Gillpak	300 Cr
Wet Suit	200 Cr
Snow Ski Set	35 Cr
Tent	50 Cr
Pressure Tent	100 Cr
7-Man Collapsible Shelter	350 Cr
Replacement power pack	75 Cr
Water Purification Unit	50 Cr
Replacement filters	5 Cr
Gas Or Oil Lantern	8 Cr
Refills	.5 Cr
Pocket Lantern	8 Cr
Aqualantern	15 Cr
Beltlight	12 Cr
Coldlight Glowsticks	1 Cr
Sleeping Bag	50 Cr
Backpack	40 Cr
Computerguide Electronic Map	100 Cr
Magnetic Compass	5 Cr

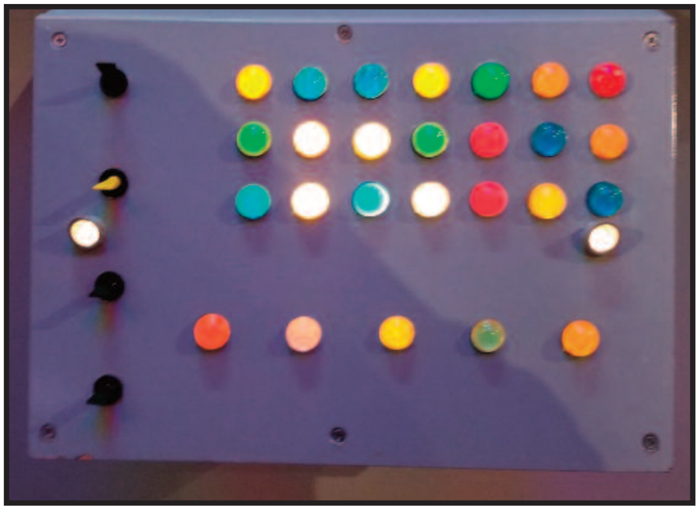
ELECTRONIC PERSONAL EQUIPMENT

Personal Transactor

This is the basic model of the pocket-sized device used to make cashless transactions between two private individuals on most Federation worlds. The device allows money to be transferred from one card to another, but the transfer is not actually recorded until the next time one or the other party places his card into a bank machine, store transactor, or other device that is actually tied into the bank master datanet. In practice, this delay has little or no effect, because the card knows the money has been exchanged. Most personal transactors can be plugged into a common communications terminal for a quick update from the bank computer if desired. Standard transactors are not equipped with retina scanners, and so they are used only for transactions between two people who know each other.

Pocket Computer

About 15 x 8 x 2 centimeters, this is a basic unit that combines a simple flatscreen text display with a limited memory capacity of about one million characters and moderate data processing capability. A normal pocket computer will read standard computer carts, though it is not equipped with 3-D graphics or high-resolution flatscreen display. It cannot be plugged into a communication terminal for connection with larger data networks. Pocket computers that do not have keyboard inputs or voice recognition circuits may be much, much smaller, but they must rely on preprogrammed data carts for all input.



Personal Computer

Much more versatile than the pocket computer, this device is pocket-sized or briefcase-sized, depending on the exact manufacturer and model. It has a small, high-resolution screen capable of displaying digitized color photographics or video images as well as text. It normally accesses more on-board memory than a pocket computer (up to five million characters). Plug-in modules allow it to act as a personal transactor, a video cart viewer (with 3-D display if plugged into an auxiliary display unit), or a communications link to satellites, world-wide databases, or ships in the vicinity.

Computer Briefcase

This briefcase will hold the complete personal computer system listed above, including ten carts, or it can be used as a normal briefcase. The high-impact duraplastic cannot be scratched by normal wear and tear. It comes standard with an electronic lock that can be coded to an electronic key (included) or to one of several possible ID cards. Combination locks are also available, with electronically coded combination latches and miniature numeric keypad.

Portable Cart Viewer

The unit is about the size of a pocket radio, and has a high-resolution screen. It is used to view visual (still and video) recordings only, and cannot be used to scan data carts. The camera (about the size of a large writing stylus) and record attachment (about the size of a computer data cart) allows the user to make new vision/sound recordings. A larger camera with two lenses can be used for 3-D recordings. Like the personal computer, it uses color-coded carts, but coded for video data only.

Computer Carts

These standard-size, square carts are color-coded according to the type of data or intended use. Information is stored on a molecular level, with each small cart holding up to eight million characters of data.

Pocket Communicator

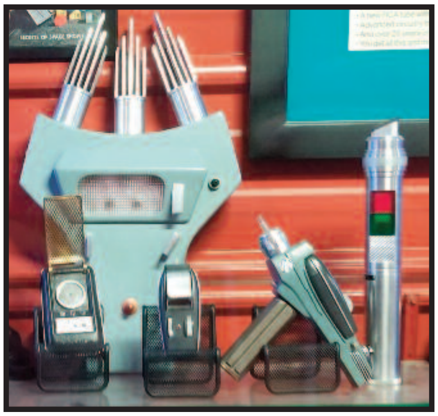
For voice communications only, these units do not have the range or variety of features of Star Fleet issue communicators. They are capable of linking with a local communications net (present in most urban areas) for satellite relay. They can also be used for line-of-sight communications up to 30 kilometers. A shuttlecraft or other surface station may relay communications to an orbital target.

Long Range Communicator

This device is capable of voice communications to orbital satellite relay directly (as opposed to the pocket communicator) or to a starship, but still is not up to par with Star Fleet issue. The unit can, however, be used as a locator signal for transporter operations.

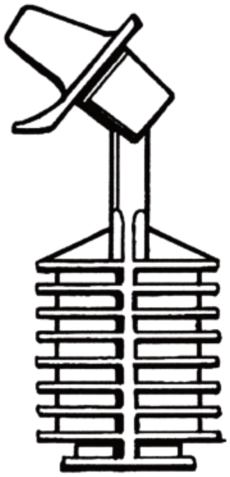
Universal Translator

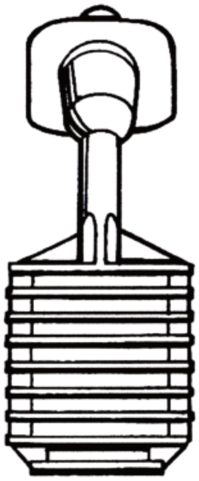
This hand-held device is capable of translating most alien languages after listening to roughly 30 minutes of the language. The unit is very expensive due to its very recent development; costs should drop at least 50 percent in the next five years.



Earpiece Receiver

This is a one-size-fits-all model, unlike the custom-tailored Star Fleet issue models. A custom-fitted earpiece can be purchased for twice the price, but requires one day for fabrication, and the purchaser must be available for a one-hour fitting.





Tricorder

A data-gathering and recording mechanism, similar to the standard Star Fleet issue tricorder. It can gather data on energy sources, physical composition of an object, and life-form data.

Metal Detector

This is a sensitive detector, about the size of a tricorder, that detects small metallic objects with great precision. It provides more sensitive and specialized readings than can be obtained with a tricorder.

Portable Power Supply

This backpack-sized microfusion plant provides power for most items for 20 weeks without service or replenishment. It can also act as a recharging station. Weapons still require an intermediate recharge pack be plugged into this unit. Other equipment can be plugged directly into the station.

PERSONAL ELECTRONIC EQUIPMENT COSTS	
Personal Transactor	50 Cr
Pocket Computer	30 Cr
Personal Computer	800 Cr
Personal Transactor Module	20 Cr
Video Cart Viewer Module	100 Cr
Communications Module	200 Cr
3 Computer Carts	5 Cr
Briefcase	40 Cr
Portable Cart Viewer	400 Cr
Universal Translator	12,000 Cr
Pocket Communicator	30 Cr
Long Range Communicator	75 Cr
Earpiece Receiver	10 Cr
Tricorder	400 Cr
Metal Detector	150 Cr
Portable Power Supply	1,000 Cr
Replenishment Packs	200 Cr

OTHER PERSONAL EQUIPMENT

Replacement ID Card

Replacement cards are deliberately expensive to encourage people not to lose them. If lost, they can be replaced at a bank machine equipped with a retina scanner.

ID Forgery Unit

These are devices that allow a forger to create faked ID cards or change the information on real ones. The device is only useful to someone very skilled in its use. It is pocket-sized, and at first glance appears to be a normal personal transactor. Possession of a forgery device is illegal in the Federation.

Wrist Chronometer

Basically a digital wristwatch, the chonometer is accurate to one second per year. Higher-priced models have alarms, calculators, short-range communicators, built-in video games, pagers, pulse, respiration and temperature sensors, and more. A favorite feature in urban environments is a loud piezoelectric alarm that can be set off manually as an anti-mugging device.

Binoculars

Images are enlarged and enhanced by precision optics aided by a tiny microcomputer chip. Most models can be fitted with cameras, infrared viewers, or light enhancement filters at additional cost.

Film Camera

Flat image camera (with through-the-lens viewing), producing instantly developed pictures plus a digitally encoded strip that serves as a 'negative' for additional prints or enlargements. Advanced, electronically enhanced optics allow most cameras in this price range to take closeup and telephoto shots with a simple adjustment.

Holographic Camera

This camera creates a digitally-encoded cube (like the film strip) that can be recreated as a 'solid' 3D image after processing. Holocube photographs are quite common on even medium-technology worlds. These photos are 7 to 15 centimeters on a side when prepared. The image is generated within a virtually invisible clear plastic hollow cube, when the photo is to sit on a desk for public viewing. Otherwise, it can be transferred to a standard cart for viewing at any 3-D-capable terminal.

Infrared Lens Kit

These are attachments for standard cameras or binoculars, which allow detection of objects by their heat generation. The devices allow easy visual detection of a warm living being against a colder background or within another object that conducts heat (like the walls of a shuttlecraft). Also available in goggle form.

Light-Enhancing Viewer

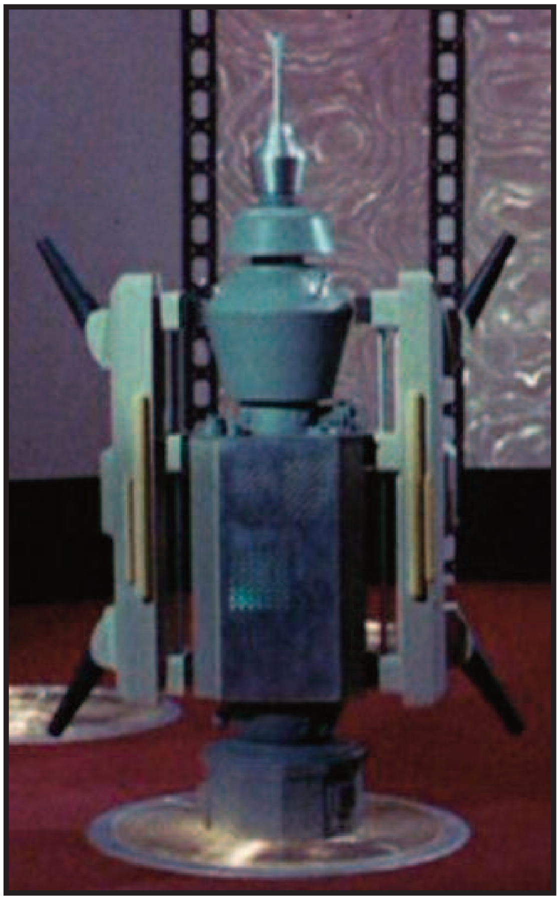
Also known as "starlight scopes", these devices enhance even the smallest light source to visible levels, but with a corresponding loss of detail. They can be attached to cameras or binoculars, and are also available in goggle form.

Portable Anti-Grav Unit

A small hand-held device with magnetic clamps or sticky pads capable of lifting up to 100 kilograms. Several may be used together to lift heavier objects.

A-Grav Platform

A floating, disk-shaped work platform about one meter across, it will raise and lower to any height with a belt device. The platform supports about 200 kilograms.



Force Field Box

This is a special box with an interior force field that can be used to transport antimatter samples. The interior field is controlled by a remote control unit.

Rope

This plasteel cable will support up to 500 kilograms.

MISCELLANEOUS PERSONAL EQUIPMENT COSTS	
Replacement ID Card	100 Cr
ID Forgery Unit	15,000 Cr
Wrist Chronometer	5 Cr to 100 Cr
Binoculars	100 Cr
Film Camera	30 Cr
Holographic Camera	400 Cr
Holocube	1 Cr
Infrared Lens Kit	200 Cr
Infrared Goggles	225 Cr
Light-Enhancing Viewer	250 Cr
Light-Enhancing Goggles	275 Cr
Portable A-Grav Unit	125 Cr
A-Grav Platform	400 Cr
Force Field Box	1,000 Cr
Rope, 100 m	20 Cr

Weapons

FEDERATION STAR FLEET

Phaser 1: The most common hand weapon issued to Star Fleet personnel. The Phaser I is carried by all personnel on landing party duty, with the possible exception of medical personnel (at the option of the ship's captain and chief medical officer). It is a small palm-sized box with a power grid, setting wheel, charge indicator dial, warning light, and rectangular trigger button.

The Phaser I unit (also called a "hand phaser") is usually worn inconspicuously on the belt under the uniform shirt in back. Phaser I is carried on landing parties when the display of obvious weaponry would be inappropriate, such as when calling on a friendly planet or when on a diplomatic mission. Only security personnel are normally issued phasers on board ship. They carry Phaser I normally and Phaser II during a security alert.

The hand phaser has a variety of settings for different uses, as detailed below:

STUN: A non-lethal setting that affects the nervous system of the target, causing unconsciousness.

HEAVY STUN: A more potent, but still non-lethal setting for use with larger and/or stronger life-forms.

HEAT: This setting excites the molecular motion within an object, causing it to heat up rapidly. The setting can be used as a cutting or welding torch,or to light fires, depending on the beam spread adjustment of the phaser emitter nozzle.

DISRUPT: This setting disrupts the nervous system in a lethal fashion. It also disrupts the crystalline structure of solid matter, shattering it.

DISINTEGRATE: This setting drains the most power, but is capable of completely breaking down the molecular cohesiveness of a single man-size target, causing it to disintegrate completely.

A phaser can also be set to overload and explode, releasing all stored power in one burst. Once set for overload, a phaser emits a characteristic whining sound, which rises in pitch. Sixty seconds after activation, the phaser will explode.

Phaser II: Also called a "phaser pistol" this sidearm consists of the Phaser I unit snapped into a pistol-grip mount that provides an extended power pack, finer control, longer range, and more stability than Phaser I alone. The Phaser II is carried by landing parties where hazardous conditons exist, and the open display of firearms does not matter. It is worn in a holster framework at the waist. Phaser II is issued to security personnel aboard ship only during a security alert.

Phaser II also operates at all setting above, with a corresponding increase in range. The overload explosion radius is also increased because of Phaser II's larger power pack.

Phaser Rifle: The Phaser rifle is used only in combat or emergency situations by security personnel. The rifle consists of a rifle mount with extended powerpack into which the Phaser I/Phaser II combination is fitted. It further increases the range of all the settings listed for Phaser I above, and further extends the overload blast radius.

KLINGON EMPIRE

Agonizer: This hand-held device is applied to the left shoulder just above where the ear is located in humans. It produces pain through direct stimulation of the nervous system and is effective on all vertebrate life. The power can be adjusted from mild discomfort to crippling agony. On high settings, a character must make a successful saving roll against the END attribute to take any action at all, and the saving roll is at a penalty of 50 points! Thus, all but the hardiest individuals are helpless when under the influence of an agonizer.

One of the most insiduous features of the Klingon agonizer is that it does not allow the victim to lose consciousness! Consciousness is maintained through direct manipulation of the nervous system, thus making it impossible for the pain to be escaped by passing out.

The agonizer is carried by Klingon officers, and is used for discipline and torture. (See rules on torture in the characters section under special talents). It does not make a good combat weapon since it must be applied to the body in the proper location to work properly. (The left chest position is preferred, but a location near any major nerve center will serve.)

Sonic Disruptor, hand: The disruptor sidearm carried by all Klingon officers and many Klingon soldiers works on the principle of cellular disruption through ultrahigh frequency sound. The sound is focused into a tight beam resembling microwave radiation. A visible light beam is a parasitic effect of the focused sound/maser.

The disruptor affects the delicate nerve cells of a victim first producing pain and crippling. A grazing shot will produce first pain, then numbness of the extremity affected. A solid hit will continue producing damage through actual heating of the tissues. Prolonged fire will produce heating and disruption of any type solid matter.

The sonic disruptor is not effective across a vacuum, but a true microwave version is used as standard main batteries aboard Klingon war vessels. This version is quite effective across a vacuum, as it is not sound-based. More compact versions of the microwave disruptor are rumored, and this version will no doubt eventually replace the current sonic models as sidearms.

Sonic disruptors are a standard trade item with the Klingons (among those few interstellar groups that will trade with them at all!) Thus, they are widely used by other cultures as well. Romulan sidearms are a refinement of the same principle, differing only in appearance from the Klingon models. Klingon-designed disruptors often show up in the hands of smugglers, pirates, and other law breakers around the fringes of the Federation. They are cheaper and easier to build than the more versatile phaser, which accounts for their use by certain criminal elements, such as Orion-based privateers.

Disruptor rifle: A heavy-duty version of the disruptor pistol, this weapon is used by Klingon security forces and guards on active duty. It has a longer range than the pistol model, but does no more damage. This weapon is also widely used, in somewhat varying forms, among other cultures that are rivals of the Federation, notably the Romulans.

ROMULAN CONFEDERATION

Weapons in use by the Romulan Confederation at this time seem to be refinements and copies of Klingon-design sidearms. Some of this can be attributed to the fact that the Klingons and Romulans have recently signed a technology-swapping treaty. Mostly, though, the Romulans do not believe in redesigning something simply for the sake of being different. The disruptor principle is recognized throughout the known galaxy, and Romulan adoption of it is typical of their efficient thought in martial endeavors. Romulans do not make use of any device similar to the Klingon agonizer. This is also typical of Romulan psychology. The Romulans do not use demeaning methods of disciplining well-trained professionals. Nor do Romulans take prisoners or practice torture in search of information, as they assume that any worthy opponent would find some method of committing suicide before giving up information.

GORN ALLIANCE

Gorn Blaster: As with other elements of Gorn technology, Gorn sidearms are not in the least subtle. The Gorn Blaster is just that. It fires a beam of semi-coherent energy that does damage through burning and cellular destruction.

The beam is not well focused, hence the Gorn Blaster has less range than the Klingon disruptor, though the basic hand disruptor has less raw power. Designed for the oversized Gorn hand, the blaster is clumsy for most other races to use (+10 penalty to the "to hit" roll).

Individual designs vary widely, as many Gorn family/tribal groups have their own weapons manufacturing facilities. All have about the same range and effectiveness, however.

Strangely enough, though larger rifle-type weapons have been observed in use by the Gorn, they do not seem to be much more effective than the sidearms!

WEAPONS TABLE

WEAPON TYPE	PARRY	DAMAGE	POINT BLANK	SHORT	MEDIUM	LONG	EXTREME	AMMO/ POWER	GRAZE	DRAIN	OVERLOAD RADIUS
Range Modifier			*−15*	*+0*	*+15*	*+30*	*+45*				
CLUB, other similar	P	2D10	---	---	---	---	---				
MACE/FLAIL/AXE	P	4D10 + 10	---	---	---	---	---				
DAGGER/KNIFE	some	2D10	1	2-5	6-10	11-15	16-20				
SWORD	P	4D10	---	---	---	---	---				
POLE WEAPON	P	4D10 + 5	---	---	---	---	---				
BOW (w. normal quiver)	P	4D10	1	2-20	21-60	61-130	131-190	20			
CROSSBOW (w. quarrels)	P	4D10 + 10	1	2-12	13-35	36-60	61-90	20			
PISTOL	–	4D10	1	2-10	11-25	26-40	41-75	6			
CARBINE	P	4D10 + 10	1	2-15	16-50	51-100	101-170	5			
RIFLE	P	4D10 + 5	1	2-30	31-100	101-200	201-300	30			
SHOTGUN	P	4D10 + 10	1	2-10	11-25	26-50	51-100	2			
SMG (submachine gun)	P	4D10 + 20	1	2-15	16-45	46-80	81-120	32			
MG (machine gun)	–	4D10 + 30	1	2-50	51-150	151-300	301-500	50			
POLICE STUNNER	–	75*	1	2-5	6-12	13-30	31-50	20	25*	1	
STUNCLUB	P	40*	---	---	---	---	---	---	---	---	
GORN BLASTER	–	50	1	2-4	5-8	9-20	21-40	25	20	1	
HAND DISRUPTOR	–	75	1	2-4	5-10	11-20	21-35	20	25	2	
DISRUPTOR RIFLE	P	75	1	2-10	11-25	26-40	41-100	50	25	2	
HAND LASER (old-style)	–	80	1	2-6	7-15	16-30	31-60	20	20	1	25 squares
LASER RIFLE (old-style)	–	80	1	2-15	16-40	41-100	101-200	40	20	1	100 squares
PHASER I	–		1	2-5	6-12	13-30	31-50	20			30 squares
stun		75*							25*	1	
wide angle stun		75*	1	(2-5)	6-10	11-15	16-45	15	25*	4	
heavy stun		120*							40*	2	
heat		40							20	1	
disrupt		150							50	2	
disintegrate		DESTROYED							50	4	
PHASER II			1	2-10	11-24	25-60	61-100	35			100 squares
stun		75*							25*	1	
wide angle stun		75*	1	2-10					25*	4	
heavy stun		120*							40*	2	
heat		40							20	1	
disrupt		150							50	2	
disintegrate		DESTROYED							50	4	
PHASER RIFLE			1	2-15	16-35	36-90	91-150	50			125 squares
stun		75*							25*	1	
wide angle stun		75*	1	(2-15)					25*	4	
heavy stun		120*							40*	2	
heat		40							20*	1	

*Non-permanent damage

Phaser I, II and rifle stun effects last 2D10 + 10 minutes.
Heavy stun effects last 3D10 + 20 minutes.

Shipboard Systems

In this section, details are provided on many of the systems and features found on Federation starships. The Constitution class starships (such as the U.S.S. Enterprise) are used as the basis for the descriptions in this section, but many are found on other ships of Star Fleet, and some are found in altered versions on ships of other interstellar powers as well.

These descriptions are provided to give an adequate background for the capabilities of these systems in game terms. More detailed and specific information on systems are provided in the documentation accompanying STAR TREK ship design packets from FASA. (Packets on the U.S.S. Enterprise and her sister ships of the Constitution class and on the Klingon D7 Battlecruiser should be available from FASA at this time, with others to come.)

COMPUTER, SHIP'S

No interstellar vessel is flown totally by manual controls. Only incredibly sophisticated computer technology allows the harnessing of the matter/antimatter mix that powers Federation warp drives. (Ships of other starfaring cultures work in similar ways.)

Computer complexes control interstellar navigation, weapons systems, life support, power flow monitoring, and almost every aspect of life aboard a starship. In addition, reference data is stored in computer memory banks far more compact and sophisticated than those in use in the 1980s.

Because the functions of these computers overlap so much, most ship designs find it best to coordinate the efforts of these computerized controls through one central computer. Star Fleet ships larger than shuttlecraft all have centralized computer control, some more than others.

In the case of the U.S.S. Enterprise and similar starships, this central computer is programmed to respond to questions and other input in an almost human-like fashion. These Duotronic computers (so-called by their inventor, Dr. Richard Daystrom) are not truly capable of independent thought, but they are the next thing to it. (Daystrom's later development, the M-5 Multitronic computer, is a whole different story! See the STAR TREK episode, *The Ultimate Computer* for details.)

The central computer aboard Federation capital ships like the U.S.S. Enterprise responds to voice commands, and is capable of identifying a person unerringly from a voice pattern. (And just as capable of denying information to those persons it considers unauthorized, though this feature can be worked around on certain material by a clever or well-trained individual). In addition, the computer can respond with a human-like voice and speech mannerisms.

(Early in it's current five-year mission, the computer aboard the U.S.S. Enterprise was programmed with a distictly female voice. Certain programming errors caused it to develop a much too humanlike attachment to the ship's captain, however, and the computer was later reprogrammed to behave a bit more mechanically!)

The central computers on large ships are tied in with huge memory banks of research and factual material known as library computer banks. The extent of knowledge in these banks varies from ship to ship, but the Constitution class starships have huge library banks that contain the entire body of factual knowledge known to the Federation! (Think of the Library of Congress at your fingertips, just a question away, and you'll have the right idea!) These memory banks also contain the ship's technical, medical, scientific and recreational libraries, and such information can be displayed on any terminal on the ship with the touch of a button or a verbal command.

Large ships have such terminals everywhere, including in the quarters of department heads and other important officers. There are study and recreational terminals in crew quarters on most ships. Of course, the most sophisticated and versatile terminal, including reprogramming controls, is on the bridge at the station of the science officer. The science officer is in charge of all computer operations on large ships.

The central computer on such ships is capable of translating languages instantly, of providing needed historical or cultural data, of analyzing data and coming to conclusions based on such analysis, and of monitoring every function of the ship. Many of these functions can be provided to landing parties, if they are equipped with communications equipment and data-gathering devices such as tricorders for feeding data by communicator link to the ship's computer.

These sophisticated computers make many of the ship's routine functions almost automatic. This is good, since a large ship can be made to operate with just a skeleton crew if necessary. It can also lead to problems, if the computer is tampered with or damaged. Manual controls are available for every system, but they do not operate with the speed or the efficiency of the computer-controlled methods.

In a very real sense, the central computer is the brain of the ship — its most useful, and potentially its most vulnerable part.

DEFLECTOR SHIELDS

This electronic force screen is the first line of defense for most types of larger ships, including most Star Fleet capital ships. Deflector shields (also called "deflector screens") dissipate the force of any impact of matter or energy, preventing damage to the ship.

During normal operations, shields are held to minimum power. At this level, they can sweep aside space debris, small metorites and other navigation hazards. (It is also effective against old-style radar, though not against the more sophisticated sensing devices of modern starships). Shield power can be increased to any part of the shield at a moment's notice (called "raising the shields"), if enough ship's power is available. At maximum shielding strength the drain on power reserves is enormous, and such a state cannot be maintained unless power is diverted from other major systems such as warp drive and weapons.

Shields are effective against both matter and energy — even antimatter in very small quantities. The more damage the shield absorbs, however, the more likely it is to be overloaded by the stress. If a shield is overwhelmed some of the kinetic energy is passed to the ship. In some cases, the shield generators may be damaged, causing the shield to "fall" or become unpowered.

Because deflector shields absorb energy discharge, their presence blocks the use of transporters in or out of a ship. A ship's weaponry can be used with shields up, however.

DISRUPTORS

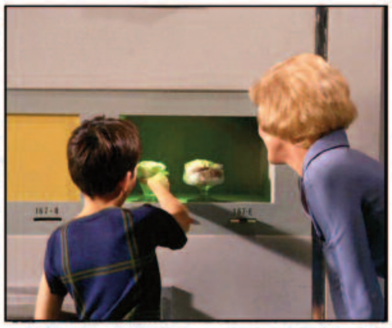
Disruptors are the prime ship-to-ship combat weapon of several spacefaring cultures that are rivals of the Federation, including both Klingons and the Romulans. Romulan craft are now, in fact, using Klingon-design ship disruptors as well as a number of Klingon-design ships, due to a recent technology-exchange treaty.

The shipborne disruptors do not work on the sonic principle, as do the disruptor sidearms carried by Klingons, but the effects are very similar. Disruptor fire causes massive destruction of nervous tissue in living things, and also heats and breaks up the molecular structure of most solid materials.

Though disruptor bolts are not as versatile or powerful as phasers, Klingons prefer them (though some phaser technology is known to them) because disruptor banks are less of a power drain, easier to maintain, and less vulnerable than delicate phaser equipment.

Disruptors can be directed against ground targets, but they are not terribly accurate for that purpose. Klingon commanders, however, would mainly use such tactics as a move to induce terror in a population, or wipe out large areas, so this is not a particular handicap for their purposes.

FOOD SYNTHESIZERS



On most larger modern star craft, the problem of storing and preparing food has largely been solved by the use of food synthesizers. These computer controlled devices are stocked with basic protien, fiber and nutrient supplies. The machine then takes these basic foodstuffs and reworks them into textures, colors and flavors that are almost indistinguishable from freshly prepared meats, vegetables and fruits. Better food processing units can produce almost any meal desired, from memory banks containing millions of recipes and specialty food stocks in special storage.

On board Star Fleet vessels, synthesizers must be programmed with dishes that are palatable and attractive to the representatives of many very different Federation races. Synthesizers on larger ships also are prepared for the visits of many types of alien guests. It is the responsibility of the ship's commissary department to maintain and control food synthesizers and to gather and program new menu items.

Outlets for food synthesizers are food slots. A nearby keyboard allows selection of your meal. (Some units have visual displays as well). Production of a standard item takes almost no time at all, as part of the processing of such items (basic breads, meats & cheeses) is done in advance. More exotic dishes take a bit longer, but never more than a couple of minutes.

Food slots are found in the mess hall, of course, but some ships have several located in other areas so crewmen can pull a quick snack while on duty. The remote food slots are serviced by a miniature version of the turbolift system, in some cases paralleling the turbolift shafts themselves. Often, remote food slots are found near turbolift stations for this reason.

FORCEFIELD, DETENTION

A detention forcefield is a variation on the principle of the deflector shield. It is used in a ship's brig to provide an invisible barrier across the open doorway of maximum security detention cells. Such a barrier is safer even than a steel door, since it will not only prevent escape, but absorb the energy of a weapon attack (on or by a prisoner) and allow the easy viewing of a prisoner without the need for unreliable and vulnerable surveillance cameras.

Such force fields provide a mild shock when a prisoner attempts to penetrate them – not enough to injure, but enough to deter escape attempts and to remind one that the shield is indeed on. The fields have their own separate power supplies, so that an interruption in ship's power will not allow an escape. Normal sidearms (such as phasers and disruptors) will not penetrate the field, unless fire is sustained. Heavier weapons may overload the field (as with deflector shields) and cause it to fall.

GRAVITY, ARTIFICIAL

Since the development of cheap, effective means of controlling and simulating gravitation, almost every starship has been equipped with artificial gravity. Gravity controls are maintained by the ship's environmental computers, and the fields automatically compensate for normal ship accelleration, though they cannot react fast enough to prevent short, unexpected jolts (such as impact shock passed through the hull or emergency evasive maneuvers).

Usually, power for artificial gravity systems is on a separate circuit from other systems for the crew's protection, and a ship would have to suffer quite a bit of damage to have those controls fail. Artificial gravity can be reduced or shut off entirely in localized areas, such as VIP quarters for beings from low gravity environments, or in the gymnasium for zero-G combat exercises.

Most Star Fleet ships maintain a 1G (Earth normal) field, as 1G is a convenient medium level, tolerable by most Federation and friendly species. A ship manned entirely by Vulcans might maintain a Vulcan-normal field, adjusting it downward only when visitors were aboard. Some smaller ships, particularly military vessels in front-line service, prefer to keep a zero-G condition, having become used to living and working without gravity.

IMPULSE POWER

Most starships, and many sub-light vessels, are equipped with impulse power engines, a type of reaction thruster. Impulse engines are a cheap, clean reliable source of sub-light propulsion. Power is created by the operation of such engines, and this power can be diverted for use in ship's systems. (Nowhere near as much power is produced as with the matter/antimatter reaction of warp engines, however).

Impulse power alone can be used to drive a ship to nearly the speed of light, but only the use of warp drive makes interstellar travel practical. Still, variations of the impulse drive are in use by every major starfaring race in the galaxy because of its dependability for interplanetary travel and maneuvering.

LOG, SHIP'S

Almost every vessel in space keeps a ship's log – a complete record of the ship's voyages and day-to-day operations. The captain and officers of a ship will record important orders and updates on the operation of their departments, this procedure being called "logging an order" or making a "log entry". The ship's computer, however, is constantly updating the memory banks devoted to the log with data about ship's condition and routine matters.

In times of crisis, a captain may request that the latest entries in the ship's log be beamed back to his nearest headquarters outpost (in the case of Star Fleet ships, to Star Fleet Command or a nearby Starbase). This is done if the captain feels there is a significant chance that the ship may be lost in action, to warn later expeditions of possible danger. If a ship is in immediate danger of destruction, important information from the log may be recorded and released in a ship's message torpedo. If a ship is crippled, a ship's recorder marker, containing a locator beacon and recordings of the most recent log entries, is launched automatically. Of course, the log contents are beamed back to headquarters automatically be the computer every so often in any case.

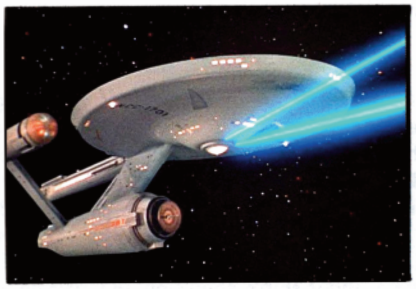
An officer on a landing party who is out of contact with the ship may record a "supplemental log entry" using a tricorder. This is a record of his actions and impressions on-the-scene, and can later be transferred to the official log when contact with the ship can be made.

MATERIAL FABRICATION

Since it is impossible to predict with 100% accuracy what items a ship's crew will require on exploratory missions, larger ships carry supplies of raw materials and computer controlled mini-factories called "material fabrication units". The memory banks devoted to this system contain plans and manufacturing data for thousands upon thousands of common pieces of hardware, and others not so common. Clothing, small devices, and almost any other basic item can be manufactured quickly and in quantity by these processing devices.

Thus, ship's stores of repair parts, clothing, basic personal items, and expendables can be much smaller, with more being created from easy-to-store raw materials as desired. This allows a landing party, for instance, to be outfitted in clothing to match native costume. Patterns stored in the computer are consulted, and material fabrication machines turn out complete, tailored wardrobes, right down to belt buckles and bobby pins. In the same way, when sick bay requisitions simple items like tongue depressors, they can be turned out quickly. The ship's quartermaster is in charge of material fabrication and ship's stores, in the same way the mess department is in charge of food synthesizer machinery.

By the way, the use of material fabrication machines to produce uniforms eliminates the need for a ship's laundry (other than a small facility for personal items of clothing not recycled), as soiled uniforms are simply reduced to component parts and recycled, not washed.



PHASERS

The phaser is the major shipborne weapons system in use by the Federation Star Fleet. The operation of the phaser sidearm is covered in the weapons section and under combat. Ships carry artillery-sized versions of these weapons, often mounted in pairs called "phaser banks".

Ship-mounted phasers are usually used for ship vs. ship combat, but can also be directed against ground targets. When so used, they can be fired accurately within a city block or so. Even more accuracy is possible if someone with an active communicator acts as a forward ground observer. When so used, they have the same effect as a hand phaser set on disintegrate, disrupt, or heavy stun (depending on the way the phaser bank is tuned), but affecting an area half a city block across! In this manner, a starship could easily level a city in a matter of minutes with phasers alone!

Phasers are actually armed and fired from phaser control rooms near the phaser banks themselves, but can usually be aimed and activated from repeater controls on the bridge. Phaser operation depends on keeping the banks cooled. A special coolant gas is used for this, and one of the main jobs of phaser technicians is maintaining this cooling system. The gas itself, however, is poisonous to humanoids (doing 3D10 damage to END per turn it is breathed), so phaser room duty is somewhat hazardous.

PHOTON TORPEDOES

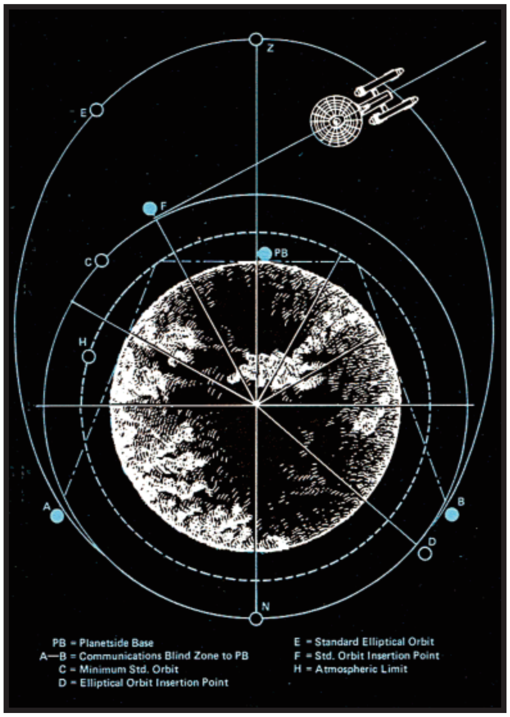
Basically a Federation weapons system (though the basic technology is known to both Klingon and Romulan science), the photon torpedo is a formidible weapon for ship-to-ship combat. The torpedo itself is an elongated ovoid shape a bit less than a meter long; a magnetic bottle containing a small bit of matter/antimatter mix similar to that used by warp engines. When loaded and armed, it becomes a destructive fireball held in check by a powerful magnetic field. The fireball is then launched at target.

In addition to use as a torpedo-type projectile weapon, photon torpedoes can be laid like mines with time, impact, remote, or proximity fuses. Only larger ships can carry these weapons, however, because of the level of sophistication of the fire control equipment and the power required to establish the magnetic field needed to arm them safely. For this reason, Klingon and Romulan vessels do not currently use these devices, though the technical know how is most likely available to them.

DESIGNER'S NOTE: Klingon and Romulan vessels do not use photon torpedoes at the time of the original U.S.S. Enterprise 5-year mission. It is only a step away for them, however, as the technology is similar to that used by the Romulan plasma weapon. In the "near future" — by the time of the first STAR TREK movie — Klingon vessels will at least have photon torpedoes. An interesting scenario might involve an experimental use of these aboard a Klingon battlecruiser encountered by the players!

STANDARD ORBIT

The so-called "standard orbits" used by many star vessels when holding near a planet are calculated according to planetary size and gravity, planetary conditions, locations and orbits of natural or artificial satellites, etc. Usually this orbit is from 1000 to 7000 miles above a planet's surface. Orbits can usually be established that keep a ship directly overhead at all times, to facilitate landing party communications. Sometimes, however, local conditions may make this type of orbit impossible.


Z
E
F
PB
C
H
A
B
D
N
PB = Planetside Base
A—B = Communications Blind Zone to PB
C = Minimum Std. Orbit
D = Elliptical Orbit Insertion Point
E = Standard Elliptical Orbit
F = Std. Orbit Insertion Point
H = Atmospheric Limit

STARDATE

Stardates are calculated from the standard Federation dating method. Keeping track of dates is harder than one might think on a faster-than-light ship because of Einsteinian time compression. The stardate is relative to position within the galaxy, and the method of computation is too complex to be discussed here. Dates are usually given in the form xxx.xx. (Sometimes one digit is given after the decimal point, sometimes two). Thus, Stardate 3305.6 would be read as "Stardate thirty-three oh five point six" not "Stardate three thousand five point six".

DESIGNER'S NOTE: A common usage among STAR TREK fans is to state regular calendar dates in Stardate form. This system makes the first two digits before the decimal point the same as the last two digits of the calendar year, and the second two digits the same as the numerical order of the calendar month. (Put a zero in front of the number if less than 10. In other words, August, the eighth month, is written as "08"). The two digits after the decimal point represent the day of the month (again, with an added zero if the number is less than ten).

Thus, the date "January 22, 1983" or "1/11/83" would be expressed as "Stardate 8301.11" in Stardate form. Though this designation is not precisely the Federation form (and episode dates do not translate in this manner) it is a useful and unique dating method, which we present here. Try it with your own gaming group!

Normal radio signals (as a matter of fact, any electromagnetic phenomena) travel at the speed of light. Thus a message sent from a starship in that manner might arrive months, years, or even centuries after the ship itself had made port! This makes common radio or TV useless for interstellar communication.

Subspace radio is the standard means of faster-than-light communication used by all starfaring races. It avoids the speed-of-light problem because its signal uses a space warping effect that causes it to travel much faster.

Though it is much faster than normal radio, it is not instantaneous. Galactic distances are so far that even by subspace radio, a message may take days or weeks to reach its destination from a remote part of the galaxy. Thus, starship captains must often act on their own authority, knowing that new orders from Star Fleet may take too long to arrive, or be outdated by changes in the situation by the time they are received.

ST Maps posits signal strength affecting subspace communications speed and distance traveled.

Therefore for game purposes, a Starbase or planetary class transmitter may be so strong as to have an effective multiplier of 1,000 while a large outpost may have 700x and starship a 500x transmitter applied to the base warp 15 value of (3,375c).

Thus, a Starbase communications center would have an effective transmission rate of up to 33,750c for 'nearby' regional burst transmissions. Or the same signal could be modulated to slower speeds that go farther more reliably. A different balance would be in place for all transmissions based on their priority, distance, direction and destinations.

A simple rule might be that the signal can go that much faster, but dissipates that much closer; and that much slower remains coherent that much farther.

Emergency alerts would go out at all speeds in all directions so that though they get it later, distant places are still covered if their local installation has failed to transmit.

Starfleet operations would have a number of frequencies set at different modulations for all sorts of circumstances, ships and missions. The same would apply for private and open commercial lines and all forms of subspace signaling efforts.

TURBOLIFTS

These high-speed, 10-man, turboelevator cars are moved about magnetically through tubes running through most larger ships, space stations, or planetside buildings. They are computer-controlled and voice-activated; the user simply enters and tells the turbolift where he wishes to go, though manual controls are provided as a back-up. Travel between stations takes at least 10 seconds.

Lift tubes are usually just large enough to pass one car, but there are side tracks in some heavily-used tubes. The computer signals unoccupied cars to move away from an occupied car's path. Normally, there is one turbolift car at each lift station, with several assigned on standby at high-traffic location such as the bridge or engineering. There is never a wait for a turbolift unless the system is manually shut down, or a car is manually stopped at a station, thus preventing another car from getting to that station.

On most large ships using a number of lifts, a central control and repair station monitors all cars. From this station, a single car can be redirected or given special clearance, or the whole system can be shut down. On some ships, 'floating' lift cars 'follow' important officers, automatically positioning themselves at the lift station nearest that officer.

Most known starfaring races, including Klingons, Romulans, and Corn, use a form of the turbolift in large ships.

SENSORS

The generic term "sensors" is used for the battery of detection, sampling, and analysis devices used by ships in space to examine their environment. Ship's sensors are used in navigation to fix exact position of a ship by examining the relative positions and spectral class of detectable stars and comparing them, through the ship's astronomical computers, to known patterns. Sensors also tie in with deflector shield controls to protect the ship from meteorites and other moving hazards of space.

Energy sensors can be directed at an object in space or a location on a planet's surface to determine the amount and type of energy being output by the object or location. This function can be fine tuned to give very accurate readings on the defensive screening of a ship or the radiation level of a dangerous area.

Material analysis sensors can tell a great deal about the dimensions, physical composition, and material properties of an object. In this respect, they give data much like a remote spectrograph, including exact chemical composition, assuming a close sensor scan can be made for a period of time. The dimensional data given by these sensors is used by the transporter to find a suitable place for beaming down a landing party, and to prevent them from being beamed into solid rock or other obstacles.

Life sensors measure the abundance, type and condition of living things at a distance. These sensors can tell one species from another – even one race from another (such as detecting the presence of Vulcan life readings aboard a derelict ship). This latter function requires a very close examination at close range, however. Life sensors can scan closely enough to guide the transporter for quick beamup, but only if the particular life patterns are known, or the living beings to be beamed are not among a large number of other, similar beings.

Reliable sensor data can be obtained by most standard sensor devices out to a distance of 100,000 miles, with sketchy, less-reliable data available to about twice that distance. Sensor scans are blocked by large amounts of rock or water, extremely thick atmospheres, electromagnetic interference, and certain types of dense or reflective materials.

Passive sensors will show what is going on with normal time dilation. One light year's distance equals one calendar year in the past.
Active sensors operating at subspace speeds show what is going on at one light year's distance in real time and allow those results to be queried.

Passive sensors will show a ship, it's approximate mass, speed, vector and possibly its shape as it occults background stars.

Active Sensors query energy status, exact vector, velocity, mass, volume, number, type and condition of lifeforms, shield status, weapon type and status, decks and internal layout and various other conditions that are otherwise unknowable by any other means.

Whatever range the Active sensors are capable of, the information gained is considered to be otherwise instantaneously gotten. Passive sensors are also instantaneously read, but are old news beyond a few light seconds or minutes depending on the situation. A delay of even one light second could spell disaster for a ship and its crew.

Sensor range is variable. A low power warp 1 ship will only be detectable at close range while the same ship fully powered at top speed will be detectable much farther away.

Thus do pirates and no-gooders travel low and slow off the space lanes to avoid the law.

In non-critical situations, where time is not important, a Skill Rating of 10 in *Starship Sensors* is sufficient to operate the sensors and to interpret most standard results. Similarly, a Skill Rating of 40 or more will yield accurate information in a timely fashion. The Skill Rating is an indication of the amount of information that may be acquired from the sensors and of the time needed for the data to be interpreted. Sensors may be used to determine the following types of information:

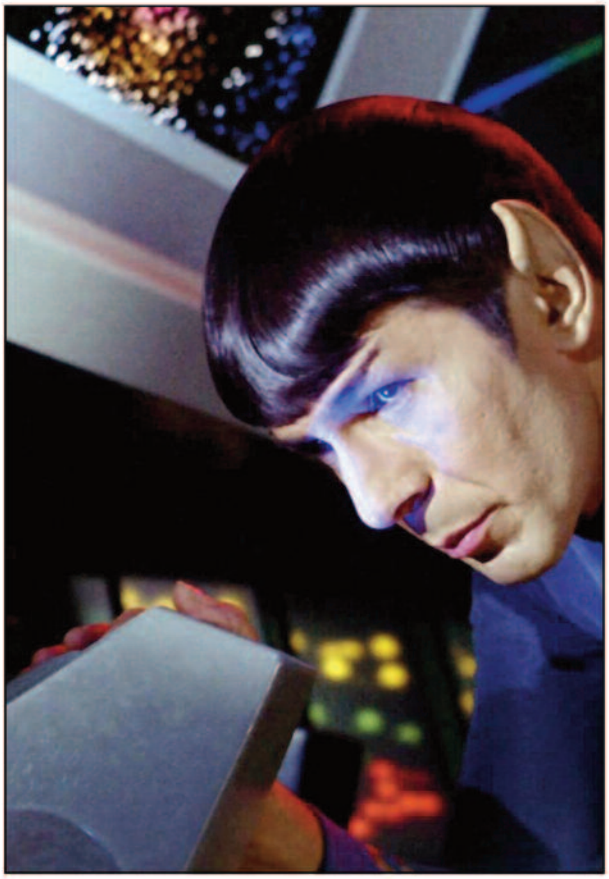
1) Presence, location, and general type of unusual energy sources in space or on planet surface. *Example: You detect an unusual source of energy on the planet's surface, near the capital city. It seems to be a crude type of matter/antimatter power.*

2) Material composition of an object, if the materials are familiar. The status of the object (solid, liquid, gaseous, plasma, fluctuating, etc.) will be known as well. Materials not known to Federation science should be noted just as 'unknown,' though their status should be given. *Example: You detect a large deposit of dilithium crystals beneath an unknown liquid.*

3) Size, speed, and vector of any object. If the object is known to the Federation, its type, nationality, and description should be available if requested. *Example: The vessel approaching is a Gorn shuttlecraft. It will intercept your orbit in 10 minutes.*

4) Presence and number of life forms, and the general type if familiar to the Federation. A shielded ship cannot be scanned for life form number or type, though the presence of life can be detected through shields. *Example: There are three unknown life forms on the asteroid's surface; two are reptilian and the third is completely unknown.*

In critical situations, or where time is an important factor, Skill Rolls are a good way of determining the amount of accurate information that may be gained through the sensors. The Skill Rolls may be made against the average of the Skill Rating of the appropriate science or technology and the Skill Rating in *Starship Sensors* and modified for the circumstances. Success will give additional information in a short time, though it is possible to determine much of the same information without the roll if enough time is spent. Examples of such additional information are given below:



1) Exact strength and nature of an energy source already detected; a second or even third Skill Roll may be required for any detailed information. *Example A: The power source you have detected is strong, but not controlled well by your standards. Example B, second Skill Roll required with a modifier of −10: It seems to be a power plant, similar to your own warp engines, but about half as powerful.*

2) The general use of the energy. *Example: The power seems to be used in a large structure, where it is being transformed into light.*

3) Presence of standard deflector screening. *Example A: The alien ship has shields up. Example B, after a second roll: The alien ship's screens are quite strong, except to aft, where they seem to be underpowered.*

4) Presence of any standard weapon systems and their armed status. *Example A: The asteroid base has armed disruptors. Example B, with the roll made against the average of Starship Sensors and Starship Weaponry Technology at a −20 penalty: The mechanism seems to be a type of laser cannon, with about as much destructive power as a medium-strength phaser but twice the range.*

5) Basic information about a previously detected unknown substance. *Example, with the roll made against the average of Starship Sensors and Physical Chemistry at a −25 penalty: The alien ship's hull seems to be made of a previously unknown material similar to plastic, but stronger than any known metal.*

6) Basic information about a previously detected unknown life-form. *Example, with the roll made against the average of Starship Sensors and Exobiology: The life-form has a crystalline structure, much like diamond, but it can grow appendages in a process that is similar to crystal growth.*

7) Basic information about an unknown culture. *Example A, with the roll made against the average of Starship Sensors, Ecology, and Exobiology: The vegetation seems to be cultivated, and the alien's digestive system could use the roots as food, but the leaves probably are mildly toxic. Example B, with the roll made against the average of Starship Sensors, Comparative Edoan Archaeology, and Edoan History/Culture: The people have been visited by the Edoans at some time in the distant past. The ruins show heavy Edoan influences, and the current dress could have been adapted from Edoan dress of 3 centuries ago.*

8) Unusual use of sensors. *Example A, with a modifier of −15 and up to −30 if many life forms are present: Sensor lock for transporter pickup from a nearby ship or planet's surface, using a sensor scan only (no communicator homing device). Example B, with a modifier of −25: Scan to twice normal sensor range.*

GETTING SOME READINGS ON SENSORS

Stardate Magazine / Jan-Feb, 1985 **11**

by William Blakely

Sensors are awfully useful things for players. They provide vital information about vessels and planets they encounter, preparing for trouble and giving them an idea of what to expect in their adventure. For the same reason they're a headache to the gamemaster, who finds it easy to give out information through them at the start of an encounter but who has to struggle later on deciding what, or whether, sensors can detect. Sensors are so universal, so devilishly useful, that problems with them will always crop up until somebody lays down detailed ground rules on the function and abilities of sensors.

For players and gamemasters who can't wait, here's some simple ideas on the subject that might help.

What Are Sensors?

"Astronomy," goes the old astrophysics joke, "is just one branch of remote sensing." Astronomy only picks up light and some other little portions of the electromagnetic spectrum, while remote sensing deals with all indicators of events happening some distance from the observer. By *Star Trek's* time remote sensing devices encompass a wide range of technologies and media and computer enhancement to provide a great volume of data for people who need it, like starship crews. Sensors of the 23rd century detect and analyze light, radio, gravity, radiation of nearly all types, high-energy particles and phenomena unknown to the 20th century. Most of these devices are detectors mounted just inside a starship's hull behind energy-transparent housings, and when people talk of 'sensors' they usually think of these.

But the data these detectors collect would be incomprehensible if it were not 'cooked down' into usable pictures, numbers, graphs and other displays that a sentient being could understand. An imaging photopolarimeter, like the one the primitive Viking Mars lander carried, doesn't take pictures—it records digital information on light values from very small sequential fields of view. It takes computers to put together an image out of that, and computers to make sense of the flood of sensor data.

For this reason sensor readouts are usually near the computer displays. A skilled sensor operator can choose different processing techniques from the computer to create different displays from the same data and possibly wring more information from it. Most of this information is visual, and so the sensor station is distinguished by the familiar reader, which projects for the operator's eyes only the requested data. It can be projected elsewhere, of course, but unless it's translated by the operator it may be more confusing than helpful.

Sensors are found on starships, on Starbases and other installations in space, and on planetary surfaces. They vary widely in size, complexity and ability: the sensors of Earth's Space Dock are the size of a small city, and can detect a basketball-sized object at the orbit of Pluto, six billion kilometers away. All sensors, whatever size or wherever mounted, share three distinct ranges and operating modes, and three different levels of information gathering: Long-range scans, short-range scans, and very close scans.

Long-Range Scans

Beyond a certain distance sensors of all types work best by simply receiving whatever light or radiation comes to them, rather than sending out a beam and waiting for it to return. Passive sensing has enormous range (astronomy, one type of passive sensing, can detect the entire universe) but it reveals little detailed information. Long-range scans can detect stars and their stellar classification, nebulae, novae and other large scale objects and events. They work best with pure energy or with objects that emit energy or radiation, and worst with objects that merely reflect energy, like planets. A skilled sensor operator can detect planets around stars at long range by passive sensing, but nothing smaller, like colonies or bases, unless they are putting out a good deal of energy. Ships at rest are invisible at long range.

Ships at warp speed are detectable at long range in very particular circumstances. A warp-driven ship rides a large 'dent' in space (the warp itself) which is more detectable the faster the ship is going. The rule of thumb is that a ship travelling at Warp X can be detected no farther than a day's travel at Warp X away. Thus, if a very faint warp burble is detected, and the distance can be inferred, the speed of the ship can be estimated and an intercept course calculated. A ship can thus pick up another ship's trail if it can reach its last known detected position within a day of detection. Not without reason are Orion pirates and Klingon border raiders known as the slowest warpers in space. A faster ship is simply easier to detect from farther away.

Long-range scans are subject to a great deal of interference from closer sources of energy. Matter in the way can block them completely, such as gas or dust clouds, planets and stars. A large radiant body, like a sun, can mask objects close to it. And the smaller an object, the less likely it will be detected, even if it is giving off energy. Survey operations, known to rely a great deal on long-range scans, have often misplaced or even failed to record the existence of some stars, simply because they were too dim and too far away to register.

Short-Range Scans

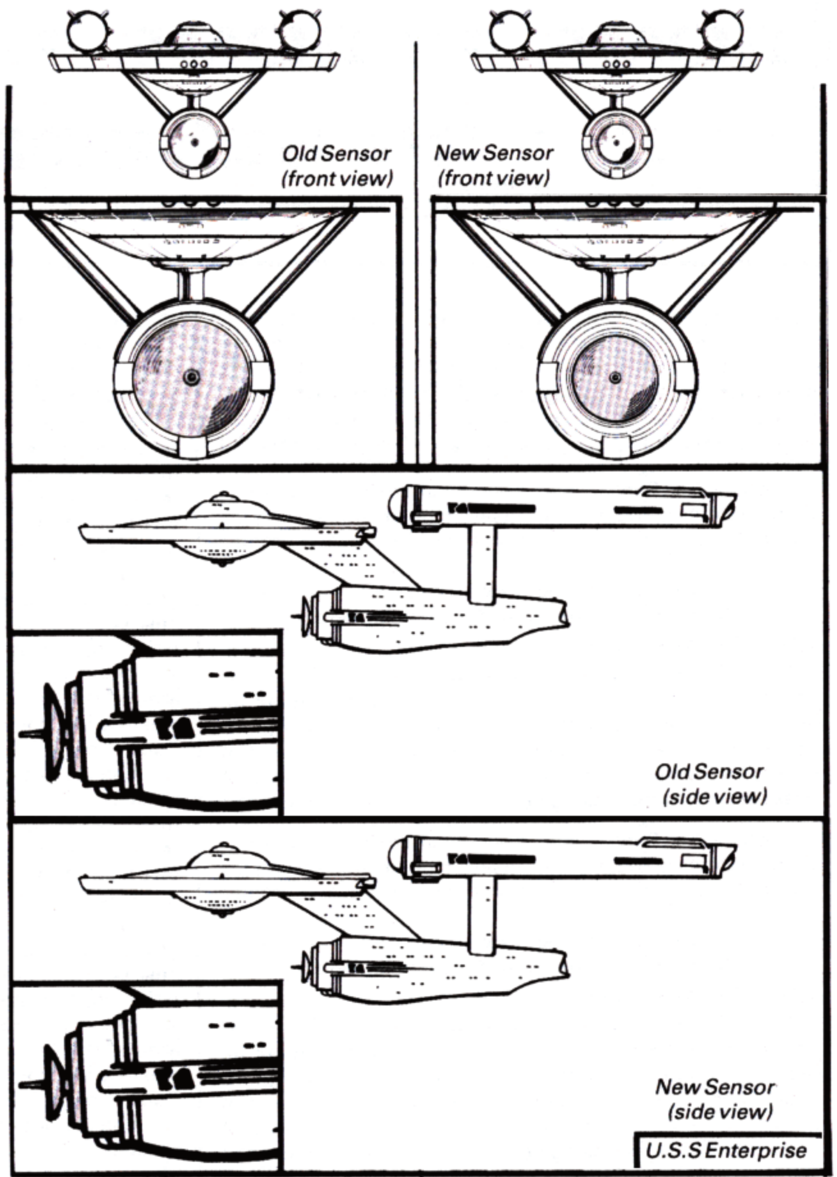
The boundary between long-range and short-range scans is the distance at which activated deflectors can be discerned. It's an arbitrary distance, but for most Starfleet vessels the range is about 300,000 kilometers. For spaceborne installations like Space Dock the range is much greater. For many merchant vessels this range is somewhat less, but some survey ships have up to twice the starfleet range. Curiously, unless a ground installation has spaceborne instruments, planetary-based sensors are no better than Starfleet's shipborne systems, for reasons discussed below.

The short-range scan radius is the usual distance active sensors become more important for data collection than passive ones. At this range sensing beams can probe an object and reveal details about its structure, composition, energy output, and dimensions. A ship can be identified if it is of a known type from the 'signature' of its engine output and its configuration. And, of course, energized deflectors can be detected, which is why the short-range scan threshhold is known as the 'combat-decision horizon' to Star Fleet tacticians and the 'fly or fry line' to Academy midshipmen.

Deflectors are not proof against modern sensors, though they will degrade the reception of detailed information and baffle low-tech radar systems. Even through active deflectors a sensing ship will be able to detect the status of weapons, the relative energy output, the composition and the status of the scanned ship's exterior and the strength of its shields. It can tell when shields weaken and when the ship or other structure takes physical damage.

Not every encounter in space is against a potential adversary. Short-range scanning, if not hampered by shields or deliberate interference, is remarkably penetrating. A ship or other artifact can be accurately measured in all external and many internal dimensions, revealing the presence, size and shape of rooms and corridors. This can indicate the approximate form of the beings who made it and use it. Lifeforms themselves, if they are aboard, can be detected and analyzed, their metabolism, atmosphere and light requirements, and living temperature discovered. Natural objects can be scanned and their composition very thoroughly investigated.

Not much can block such scans. Some materials and processes resist scanning. Things changing form, energy state or matter state, from liquid to gas or from kinetic to potential energy, resist scanning, as do radioactive substances; they can confuse sensors and make them give spurious readings, or damage them. Strong magnetic fields, natural or artificial, can do the same thing. Very dense metals like neutronium and some synthetic alloys will block sensors completely, even in very thin layers. And, of course, sheer mass will defeat the sensor probe, so if a structure is large enough like, say, the *Fesarius*, sensors may get very precise readings on what is no more than external shielding and nonessential structural members. Spacers call this 'reading the paint.'



But the galaxy is large, and there are new phenomena and effects being discovered weekly. Sensors, and their hapless operators, may be unable to fully detect and display or even describe an alien object, energy fields of unknown kinds, or wierd and unexplained happenings without a precedent in the computer memory banks. The most famous example is the 'Negative Energy Barrier' that seems to envelope the Galaxy. It is transparent and undetectable by any kind of scan unless sensors are physically very close, and then wholly nonsensical data floods in. The NEB appears to the eye to be sheets of moving fire and color, very like auroral displays, but sensors will only say that energy is flowing into the region, not from it, and that all physical laws (as far as sensors are concerned) have been negated or reversed. Some scientists have speculated that natural laws really are changed at this boundary, and the sensors are only reporting the condition faithfully. Others say nonsense, and point out that ships have been lost in the NEB and returned to report that their engines worked fine, crews ditto, while the sensors and navigating instruments were completely fogbound. The Barrier may be no more than a very anomalous region which no existing sensor apparatus can coherently describe. Since it is too costly and too far to travel to find out for certain, no further research is contemplated and the 'Negative Energy Barrier' will remain a well-known mystery for now.

Very Close Scans

At exceptionally close ranges, less than 1,000 kilometers, often closer, sensors are awesomely powerful. They can, in fact, penetrate right through most artificial and small natural objects. At such small distances sensors are very good for identifying very precise details of structure, composition, energy flows and other fields of interest such as places for transporter operation. They are almost never used for this.

Very close sensor operations involve sending extremely high levels of directed energy through the object to be studied. The result can be devastating to the object and its contents. Even in the 20th Century radar microwaves were used to cook food, and 23rd Century sensors can do much worse at far greater distances. For this reason it is bad manners and contrary to regulations (and law, in some instances) to use sensors at very close range at full power on normally-functioning installations. Scientific bases are **never** subjected to such treatment because of the great damage it can do to experiments in progress. Most of the data these sensors can detect can be more easily and thoruoghly collected by landing parties with hand-held instruments. Low-power very close scans are often used to identify transporter beamdown points for such groups, but they are used very cautiously. Generally very close scans provide the same kind of data short-range scans do for less power, and closer investigation is left to live inspection.

Some data is easier to collect by passive means at very close range. Heat flows within a structure, which can reveal how long a ship's engines may have been on or off, or the possible source of internal heating in natural objects, are best done at this range. The so-called "annihilating radiations," like deltoid and iota rays, are only detectable very close to their sources. These radiations are very deadly to living tissue. Aside from these passive scans, more can be learned from landing parties with tricorders than from very close sensor scans.

The one exception is planetary surfaces. Unless a planet is a completely airless rockball it has an atmosphere and layers within that atmosphere that trap heat, radiation, condensation, dust, and a plethora of other substances and energy flows, all several kilometers or even a dozen kilometers deep. The energies that would go through a ship or space station may not get past a planet's first radiation belt. Resolving the data revealed is by no means easy, either. The unskilled operator who first tries to make sense of a planet's surface may find mountains that move, cities deep in the oceans and lakes several kilometers above the ground. Rarely are such readings accurate. Some unlucky operators have gone so far as to report their "discoveries" to unimpressed superiors, with predictable results. Reading planetary surfaces, atmospheres and hydrospheres requires great amounts of power, time and finesse. Acquiring this finesse takes what Academy slang calls "p'than-dika," a pidgin-Vulcan term roughly translated as "filling your eyes with sand".

Atmospheres work both ways. Sensor arrays on planetary surfaces, aside from being pointed in only one direction at any one time, have a hard time looking up through the "soup". Even the best do no better than standard Starfleet ship-mounted systems, and most planet-based sensors do worse.

Interpreting planets is tricky. A rough idea of a world can be gathered in a few orbits, but a complete picture (including weather patterns, ocean currents, migrations of local lifeforms, vegetation patterns, seasonal changes, tectonic activity and much more) may be months or years in the making. A skilled operator can hypothecate a few clues into a useful model of a world, but it is a nearly sure thing that some detail will be missed. Again in the case of Mars, it was known from pre-Space Age astronomy that seasonal color changes on the Martian surface occurred in opposite direction from their Earth analogs (the change began at the poles and spread to the equator, whereas the Earth's tropical regions seem to spread their green towards the poles). The reason was not known until orbiting probes found dust storms originating near the poles and spreading to cover the planet. More recently, Omicron Ceti was explored and colonized before either the deadly Berthold rays or the nonindigenous spore-bearing plants that protected the colonists were detected. This kind of oversight is common, often with less happy results. Even very experienced sensor operators can make mistakes. For well into the foreseeable future landing parties and live investigation will be invaluable in exploring planetary surfaces.

Using Sensors

With a basic Starship Sensor skill of 10 a character can use sensors in any location at all ranges to acquire basic information without rolling for it. Characters with lesser Starship Sensor skill numbers will have to roll for any and all sensor operations.

At long range, no roll is needed to detect large sources of energy, stars, and objects of planetary size or greater in the ship's path. Normal in-flight sensor scans at long range are no more complex than this. Space searches will require a roll on Starship Sensors every hour or less, at the gamemaster's discretion, for more probing scans.

At short range, no roll is needed to detect planets or other objects down to ship size. A ship's dimensions, size, its identity if given by transponder or configuration, and deflectors if activated is known to an operator without rolling for them. Basically, anything about a ship that naked eyes could discern if they were close enough requires no roll to discover. Everything else, including lifeforms aboard and any internal details, must be rolled for.

At very close range, making planetary scans, no roll is required for making passable maps of surface features, determining the composition of the atmosphere, classifying the planet (Class M or otherwise), and determining the presence of life. Everything else must be rolled for, including finding out if any of the planet's life is intelligent or if there are artificial structures or energy sources there. Local weather, such as a landing party might need to know, must also be rolled for.

Sometimes a sensor operator may be asked to provide very specialized data, such as the presence of a particular substance, a unique kind of radiation, or identification of a particular object or event, for which the character may have no background or skill, or whose skill level is very low. A gamemaster can handle this situation in one of five ways, depending on the exact circumstances:

a) Roll under half the operator's Starship Sensors skill, rounding fractions down. The gamemaster or the player may make this roll; the operator is making a "best guess".
b) Roll the average between Starship Sensors and Computer Operation skills. The operator is calling upon the computer to help.
c) Roll the average between Starship Sensors and the required skill. The operator puts their limited knowledge to work.
d) Roll the operator's Starship Sensors and the required skill from another character. Two separate rolls, used when the operator has specialists available by communicator or intercom but not physically present. Relaying the data may require an additional roll on Language or Instruction skill to see if the meaning comes across from one to another.

e) Roll the average of the operator's Starship Sensors and another character's required skill. Operator and knowledgeable character are together and looking at the same data.

Combined operations like these often come up in doing planetary scans. Given enough time, eventually the experts can figure out the situation. The answer may not be in time to be of use to the players, however. Use the combined rolls for dramatic effect, such as for answers that are just in time or, perhaps, just a little late.

Searches by Sensors

Detecting particular objects on a planetary surace is harder than it would seem. The lost Eve McHuron, from "Mudd's Women," could not be located in hours of scanning from the *Enterprise*; no doubt the rough terrain and hostile weather were factors. A ship in standrad orbit can only keep any one area on a planet visible for about an hour. A ship may elect to go into synchronous orbit over one area on the planet, however.

In any case, success at locating any specific object the size of a humanoid from orbit is a low probability. For each orbit, or about every two or three hours (less for synchronous orbit, if you wish), a sensor operator may roll *once*. A result of less than or equal to one-tenth his or her Starship Sensor skill means success. All fractions are rounded down (skill rating of 27 would need to roll a 2 or less on percentile dice). Smaller, or buried, or indistinct objects will be harder yet. Weather, topography, and the size of the search area may also reduce the odds. Searches by ground parties are more likely to be successful, even if they seem more inefficient. Sensors have their limits.

Internal Sensors

Nearly every starship commander has wished, at one time or another, to know what is going on within their own ship. Sensors cannot scan the interior of the vessel or structure they are mounted on; not only won't the mountings allow it but they could badly injure or kill those within. It would be like using radar within a building or ship. A Captain must rely on crew reports as if from landing parties for such information or, if the Communications Officer or Science Officer is skilled enough, internal monitors and intercoms can be used to listen or watch for unusual activity. For detailed information there is no substitute for a specialized group, like a damage control party, equipped with tricorders and other equipment. Other alternatives are possible but hard to come by.

Players who remember the episode "Let That Be Your Last Battlefield" may clamor for internal sensors. Mr. Spock, however, followed the progress of Lokai and Bele through the *Enterprise* corridors through the use of the ship's communications system and computer assisted switching to keep track of them. Any character wishing to do the same must roll each Personal Combat turn under both their Computer Operation and their Starship Communications skills. An INT roll may also be necessary to keep a confusing situation clear in the character's mind. This is an exceptional and highly unusual use of ship's equipmentand a violation of the Federation regard for privacy. For characters who wish to keep track of every movement in a ship by suspicious characters, suggest a security team or, for die-hard cases, a transfer to a Klingon vessel with a recommendation for Internal Security duty.

Time and Incentive

The greatest danger to a game is from sensor overusage. The temptation to rely on sensors to learn answers is great and selsor-dependence can creep up on gamemasters unconsciously. To avoid this, every time sensors are called upon remember:

Sensors do not provide final answers. There will always be a hole, a fault, an error or gap that can only be corrected or filled in by someone down there with a tricorder and naked eyes. Resist the urge to give too many clues; if all else fails, give out false information, preferably something that causes the player characters to make costly mistakes that simple investigation could have avoided.

A better way to get people off sensors is lack of time. With computers, department-head meetings, and memory banks full of sensor data you can get encyclopedic answers from a distance. Characters in an encounter will rarely have this kind of time, and a gamemaster must remind them of it. No Captain, even a merchant (perhaps especially a merchant!), can afford to let time seep by while somebody fiddles with the sensors. A gamemaster will hand out the essential facts sensors can detect, and then inform the players that nothing else can be learned. Don't let the players get into the habit of waiting out the gamemaster. Get them physically involved.

Another useful technique is inaccuracy. Remember Omicron Ceti and the Berthold rays. On Gideon an entire duplicate of the *Enterprise* was completely hidden from sensors. A picture of a world or object will never be completely accurate. Players must come to realize this; they may beam down on a seemingly innocuous world only to find such undetected horrors as tree-barracudas, or unsuspected delights such as a race of intelligent birds. Always omit some telling hard to detect deatil that a landing party will stumble across. It doesn't have to be bad news, just memorable.

Most gamemasters may never need this primer. They will be able to keep players from becoming sensor dependent and will always give just enough sensor generated data to spark character interest.

But if you find the Captain bugging the Science Officer for more scans, or if the sensor reports get more attention than the Captain's decisions, or if the Chief Engineer wants to scan the liquor cabinet in his quarters, remeber where you read this.

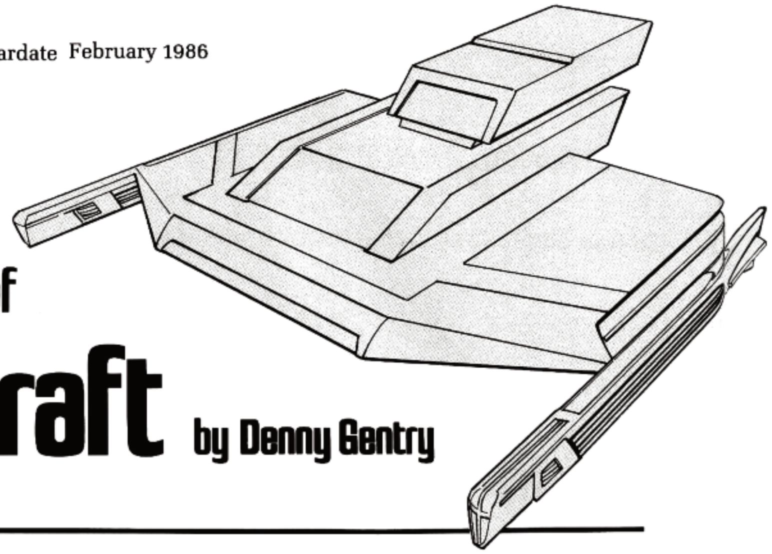
Editor's Note: As this issue goes to press FASA should be releasing the **Tricorder/Sensors Interactive Display** for ST:RPG. Combined with the excellent article above, this should solve any and all problems with sensors anyone could have.

■

Stardate February 1986

The Care and Feeding of Shuttlecraft

by Denny Gentry



Shuttlecraft are carried by most Star Fleet ships and assigned to all Star Bases. They must be able to go where the transporter beam cannot. There are specialized shuttles, and there are general purpose shuttles, but all of them have some things in common. They all carry high powered communications equipment, including an automatic homing beacon. They all contain emergency survival equipment and basic medical supplies, and all are fairly rugged and built to last.

Shuttlecraft are used by Star Bases for a variety of purposes. They are used during repair and refitting of Star Fleet vessels and as VIP gigs for visiting dignitaries. A popular recreational activity is to fly a shuttle, or simply watch the activity of a shuttle bay (minor diversions are welcome at times). It is often necessary to dispatch a shuttle as a courier, to relay equipment to a destination beyond transporter range, or investigate some in-system activity. In one case, a group of Star Fleet officers used an S-6 shuttle as a meeting room, while they took a leisurely trip to Jupiter and back. It was one of the most productive meetings they ever had.

Aboard ship, shuttles are mainly used to land on worlds when using the transporter is impossible or undesirable. Shuttles are also used when a landing party expects to stay on the planet for some time, in which case the shuttle can serve as a shelter. They are used when planetary life forms might be harmful to unprotected personnel, or with contact of a primitive culture that could not comprehend the 'magical' transporter.

There are three types of hangar facilities which Star Fleet commonly uses to house shuttlecraft. They are Shuttle Bays, Individual Bays, and Docking Collars.

Shuttle bays are the largest type of hangar used for shuttles. They come in various sizes from the cavernous expanses of many Star Bases to the smaller shipboard hangar decks housing two or more crafts. Shuttle bays are designed to allow landing and storage of multiple shuttles. They all have three major sections to them: the landing area, the storage area, and the repair shop. The landing area is used for loading, launching, and landing of the shuttles. It is enclosed by large hangar doors and has atmosphere controls. The landing area is the responsibility of personnel in one or more control towers. They oversee the operation of the hangar doors, the elevator/turntables, atmosphere control, cargo handling, and the automatic landing/launching computers. The storage area of a shuttle bay is usually located directly below the landing area. Here the ship's or base's shuttles that are not in use are stored. Some Star Bases have storage facilities capable of housing hundreds of shuttles, but these storage areas are rarely full. The repair shop is located near the storage area, usually on the same level or levels. This area performs the normal maintenance and refurbishment of the shuttles on a routine basis.

Individual bays double as landing area and storage area for a single shuttle. Used to save space, shuttles in individual bays on ships rarely have access to a repair shop. Individual bays are in use on smaller planetary bases and some Star Bases but repair facilities are always available.

Docking collars have been installed on newer shuttles, ships, and bases since Stardate 2/1209. They are intended to allow a shuttle to dock with a ship or base and unload its passengers or cargo. Standard procedure requires that the navigational computers lock on with a tractor beam to guide the shuttle into the Docking collar. This ensures safe and worry-free landings even when a vessel is moving on impulse power. Older shuttles are slowly being fitted with docking collars but it will be quite a while before the device will be standard throughout the Federation.

There are many types of shuttles in service. These are discussed below:

Type	Crew	Passengers	Speed	Introduced	Notes
S-1	1	4	.63w	1/8701	
S-2	2	9	.54w	1/8701	
S-3	1	7	.89w	2/0205	
S-4	1	5	.82w	2/1009	
Aquashuttle					
S-5	1	14	.76w	2/0210	
S-6	2	21	.56w	2/0307	
SW-7	2	6	.96w/2w	2/1408	
Long-range					
S-8	1	4	.89w	2/0907	Pressure
S-9	1	2	.63w	2/1112	Advance
Base					
S-10	1	4	.76w	2/1001	Travel Pods
Pod					

Currently, the S-3 is the standard type shuttle. The S-1 and S-2 are obsolete types and are only found aboard commercial ships who have purchased them from Star Fleet. The specialized shuttles are described below:

S-8 Pressure Shuttle

This shuttle was designed to explore the outer layers of gas giant worlds such as Saturn or Jupiter. Its superstructure is extremely strong and capable of withstanding incredible pressures. It contains specialized scanning equipment for use in its investigations. After several disastrous failures when S-8s went too deep into gas giants construction of Pressure shuttles was discontinued as the limited uses of such a design became apparent. Some have been converted to oceanographic research to explore the deepest fissures and trenches on some planetary oceans.

S-9 Advance Base Shuttle

This shuttle is intended for colonization and exploration work. It carries complete life support for a crew of three, and food for up to one month. Upon landing on a planet, the shuttle would be used as living quarters and the base of operations for the survey team. Special airlocks on each side of the shuttle allow several of them to be interconnected to form a larger complex on larger missions. Modular quarters can also be attached if necessary. The S-9 is still in service mainly with the Office of Colonization of Star Fleet but also with several scientific institutions.

Several other shuttlecraft are in operation that are not usually carried by Star Fleet vessels. Among these are the EVA spacepod, the Cargo shuttlecraft, and the Merchant shuttle. The EVA Spacepod (also known as the Repair Bug) is a small one man shuttle intended for orbital repair work. It is capable of planetary landings and is equipped with waldoes (mechanical manipulators) with a variety of tool options. In an emergency it could carry up to three people. The cargo shuttle is another one man craft which carries two 2-meter square cargo containers in an aft mounted framework. It also is capable of planetary landings.

The S-10 light travel pod and the SW-7 Warp shuttle are fully described in the *STAR TREK III Sourcebook Update* and need not be reprinted here. The S-4 Aquashuttle is described in the *Cadet's Orientation Sourcebook of ST:RPG2* and the Merchant shuttle is described in *Trader Captains and Merchant Princes.*

Star Fleet shuttlecraft are a well engineered design. Parts and service are available at nearly any Federation outpost of any size. Parts used on different types of shuttlecraft are usually interchangeable so repairs mainly consist of replacing various equipment modules. Shuttles are manufactured on various Star Bases and on major Federation worlds. Star Fleet produces thousands of shuttlecraft a year to replace older shuttles. Life expectancy is approximately 20 years of active service, after which they are usually sold to commercial concerns. Used shuttles usually sell for around 350,000 Credits and sometimes new shuttles are sold off (at around 700,000 Credits) if production overruns occur in one particular area. Currently, Star Fleet will not sell S-4 Aquashuttles (too new of a design) or S-8 Pressure shuttles (considered unsafe for widespread use). The S-9 Advance Base shuttle has proven quite popular among independent scouts and Star Fleet has begun to sell some of the older models as a result of intense lobbying by various groups.

Crews for shuttles usually come from the Helm, Security, or Engineering branch and must have Shuttlecraft Pilot Skill of 40+. Shuttle pilots must have many talents as their duties are some of the more diverse in Star Fleet's service. They may have to help repair a ship's (or Star Base's) hull, might have to serve as aide to a visiting diplomat, or perhaps perform a rescue mission. Crews must be ready to respond 24 hours a day. At Star Bases, a crewman is usually assigned to pilot a specific shuttlecraft, and tends to become very attached to his/her shuttle, just like a Captain to his ship. On ships, pilots are usually assigned where needed, and generally do not develop this type of attachment.

Shuttles are a valuable addition to a starship or Star Base which few usually think of. If you doubt this, wait until the next time your character beams down to a hostile planet and the transporter suddenly breaks down. Won't you be glad your ship carries shuttlecraft?

* * *

The Naming of Shuttlecraft

Naming of shuttlecraft is strictly up to the base or starship personnel it is assigned to. Shuttles can be (and have been) named after just about anything. Most ships or bases have a common unifying theme for their shuttles. The *U.S.S. Enterprise,* for example, uses names of famous explorers and scientists (Galileo, Columbus, Newton, Cousteau, and so forth). The shuttles on the *U.S.S. Ariksbane* are named after people and things that have to do with the sea (Nautilus, Calypso, Columbus, Nemo, Trident, and Mermaiden). The shuttles of the *U.S.S. Constitution* are named after the original homeworlds of the Federation (Terra, Andor, Vulcan, Edos, Tellar, Cait, and Alpha Centauri). The shuttles of the *U.S.S. Sunshine* are named with the same theme as the ship name (Dawnflyer, Daybreak, Morningstar, Moonbeam, etc.). Some suggestions on shuttle names are: the signs of the zodiac, the letters of the Greek alphabet, famous engineers (Goddard, Cochrane, Von Braun, etc.). Do not be afraid to use the same shuttle name that another ship uses. There are literally hundreds of thousands of shuttles in Star Fleet and no way that they all could have a unique name. (On many ships, the christening of a new shuttlecraft is a great excuse for a party.)

Besides names, each shuttle carries a unique registration number. This consists of the hull number of their home ship, followed by a slash, and the shuttle number. Aquashuttles follow this number with an 'A'; Warp shuttles with a 'W'; Pressure shuttles with a 'P'; and Advance Base shuttles with a 'B'. Star Bases and other permanent ground base shuttles use a four digit base number rather than a ship's hull number. Floating shuttles (those that have no home base or ship, but are located wherever their last mission left them, similar to rented vehicles) bear four alphabetic characters, a slash, and a single digit to designate them.

Examples: *U.S.S. Enterprise* shuttle NCC-1701/7, Star Base 3 shuttle NCC-6994/9, Floating shuttle NCC-KGGX/2. ★

SHUTTLECRAFT

Shuttlecraft are used by Star Fleet for courier vessels and to transport personnel when transporter operation is impossible or impractical. Not intended for faster-than-light travel, they are powered by an advanced ion propulsion drive similar to the impulse engines of larger spacecraft. Takeoff and landing are vertical, the shuttlecraft standing on three sturdy landing pads.

Most larger starships carry several shuttlecraft in shuttle bays; *Constitution* class ships like the *Enterprise* are assigned six shuttlecraft, but may carry more if their captains so choose. Every starbase and most smaller Star Fleet outposts berth shuttlecraft as well, and a number of them operated by Star Fleet have no set berth, acting as 'floaters' that can be used and left at the destination Star Fleet facility. Some have even been sold for civilian use.

The shuttlecraft come in two standard designs, well engineered for years of service. Parts and service are available at nearly every Federation outpost of any appreciable size, and on any starship carrying them. Some have been in use for over 20 years, with newer models having only a few cosmetic and electronic design changes and additions.

Model S-3, the standard model, travels at a maximum of .89 light-speed and is operated by one pilot. It carries 7 passengers comfortably, but, in emergencies, it may carry up to 12 on a short hop, though its life support system will not tolerate such a load for very long.

The larger Model S-5 travels at .76 light-speed and also is operated by one pilot. It carries 14 passengers. Not in general use, it usually is assigned only to large stations or starbases, though some have been issued to *Constitution* class vessels.

An experimental design is the S-4 aquashuttle. Developed for landings on water-covered worlds, it bears little external resemblance to the standard shuttlecraft, though its internal systems are similar if not identical. It is capable of interstellar flight at .82 light-speed, and of submerged travel at 100 kph to a depth of 1200 meters. It can carry 6 passengers comfortably in its specially padded and belted seats, and it holds sensing devices for doing underwater detection and research. Aquashuttles are being tested by several *Constitution* class exploration vessels for possible addition to standard Star Fleet equipment.

Standard Star Fleet shuttlecraft neither are armed nor do they have deflector shields larger than those needed for protection against small meteors and other space debris. Aquashuttles carry a single forward-firing phaser cannon, designed for use on dangerous undersea life; this cannon is about twice as powerful as standard phaser rifle. Despite rumors to the contrary, shuttlecraft are not used in starship combat, at least not by the Federation. Their power plants are too small to even be effective as guided bombs.

A Skill Rating of 10 in *Shuttlecraft Pilot* is sufficient to operate one of these vessels in normal circumstances, but regular shuttle pilots usually have a rating of 40 or more. A Skill Rating of 10 in *Water Vehicle Operation* also is required to operate an aquashuttle.

'Floater' shuttlecraft are notorious for their poor states of repair. If one is used for a major flight, such as interplanetary transport or where harsh landing conditions prevail, it could break down. Roll percentile dice, with breakdown occurring on a roll of 05 or less. Repairs will take 1D10 hours, after which a successful Skill Roll must be made to determine if more time must be spent. A successful roll concludes the repairs, and an unsuccessful roll may be repeated hourly, with a 5% modifier subtracted from the Skill Rating for each failed try; 5 unsuccessful attempts indicate that repairs are not possible and a distress signal must be sent.

Tractor Beams *(are incredibly dangerous!)*

The best way to tear your ship apart is to apply a tractor beam to another object.

A Tractor (Repulsor) Beam is a type of force field used to manipulate mass at a distance. Tractors cannot affect energy fields, only mass. The tractored mass can be held stationary relative to any given point, attracted to or repulsed from or otherwise freely translated in any given direction or relative speed around the emitter.

While modern ship design is suited to tractor technology, more fragile structures (aggregate asteroids, ice-bound planetoids or even primitive flying vehicles such as aerojets or liquid-fuel spacecraft) are likely too weak to survive for long.

'Being Acquired' by a Tractor Beam inflicts one superstructure point of damage to the target. Tractor beams do not know their own strength and cannot be modulated for 'delicate operations'. That said, tractors affect, but have no ill-effect upon organic materials or beings.

For game purposes, tractor beams are powered through the dilithium crystals. Access to the warp engines thereby creates a 'Torque Value'.

Torque Value = Warp Cruise/Emergency speed i.e. Warp 6/8 = Torque 6/8. Warp 3/5 = Torque 3/5.

Towing ship's mass (tonnage) (m)
x
Torque Value (t)
=
Tractor Strength (s)

Therefore:
A 100,000 ton ship applying Torque 6 = 600,000 tons of Tractor Strength.

Distance vs. Towage 1 ton/(mile/km/whatevs) By example above, that's one ton at 600,000 miles or 600,000 tons at one mile/km/whatevs. *(You *could* do 0.5 tons@1.2 megamiles or 1.2 megatons @ 0.5 miles or even 2.4 megatons at a quarter mile, etc... But I don't think ya want any piece of that kind of action!)*

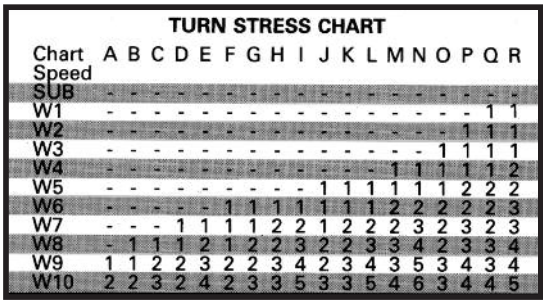
Speed vs. Towage are inversely proportional. Our 100,000t ship can tow up to 100,000t at Warp 6 or 600,000t at Warp 1. The balance of the speed is the new max. Thus, a 100,000 ton ship previously capable of warp 6/8 hauling 600,000 tons is now rated Warp 1/3. That's Warp 3/5 @ 300ktons.

Engine Point Cost

1pt per 20,000 tons towed per Combat Turn. Thus, a 100,000 ton ship applying Warp Factor 6 to escape a tractor beam becomes 600,000 tons of mass **(m)** and costs 30 Engine Points to hold per Combat Turn -in addition to Torque factors. If a tractor beam breaks, such a ship is instantly at its full velocity with appropriate damages immediately ensuing.

Emergency Warp under load

Stress loads share the same factor of damage to engines and superstructure as surely as excessive speed does.



TURN STRESS CHART

Chart Speed	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SUB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
W2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
W3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1
W4	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	2
W5	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	2	2	2
W6	-	-	-	-	-	1	1	1	1	1	1	1	2	2	2	2	2	3
W7	-	-	-	1	1	1	1	2	2	1	2	2	2	3	2	3	2	3
W8	-	1	1	1	2	1	2	2	3	2	2	3	3	4	2	3	3	4
W9	1	1	2	2	3	2	2	3	4	2	3	4	3	5	3	4	3	4
W10	2	2	3	2	4	2	3	3	5	3	3	5	4	6	3	4	4	5

Towing at Emergency Warp? Shift your stress column one to the right per warp factor above Max Cruise. (Ex. Max. Cruise=6 on G/L... Wf7 = H/M; Wf8=I/N; Wf9=J/O; etc.) Damage is *per Phase* over the Turn ala' Movement Phase table, page 156.

Fighting a Tractor at any warp? Add Tractored's Warp Factor to Tractor's Torque Value, apply this number to the chart above. If derived total is over W10, add 1pt damage per value above 10. **Ex.** a 'W20' equivalent is +10 damage to value on W10 row for *each* stress chart your ship uses, engine points first, superstructure second distributed across the Turn ala' Movement Phase, p156.

Against NCC-1701's G/L charts, that would be 13pts to the engines on 44 and 15pts superstructure on 20! Pass that bottle here, Monty, ol' pal. Ouch. 15/20...

The lesson? Don't mess with Tractor Beams!
(Oh. You *do* want more? Okay...)

Multiple Tractor Beams

An emitter may be located at the top, bottom, front, back or any side of the ship. For game purposes, tractors work in all directions equally.

A ship can have any number of beam emitters. Three is a lot, even for a Tug. Two is not uncommon, especially on prominent ships of the line. One emitter is normal on any given Starfleet, Commercial or Merchant Marine vessel. Zero is typical for private ships with after-market options available. Ask your local Tractor supply dealer.

Power Banks

Secondary and tertiary tractor beam energy is initially stored in huge capacitors, each capable of *x* power over *y* time.

All ship's should have Capacitors defined beforehand. It could be full engine point equivalent or much more or far less depending on ship size, function, mission, etc. *GM Discretion.*

This is the only circumstance where more than full power can be applied, at least for a short time.

The first tractor beam activated is always considered the primary emitter. Any other tractor beams are secondary, tertiary, etc. in the order activated.

Only the primary tractor can draw warp power directly and only one emitter can actively do so at a time. Loss of dilithium crystals loses primary tractor power.

Primary emitter cannot draw Capacitor power. Capacitor power can only go to secondary, tertiary, etc. emitters.

If a primary emitter is destroyed, the secondary emitter becomes the primary. Any remaining power capacity is drained off and switched over on phase 1, next turn.

Thus, the 100,000t ship could apply two tractors to the Marauder and double their strength that way. However, as the capacitor drains, only one tractor will remain.

Deploying a second, third or more tractor beams in a tug of war could go very badly for the Tractor depending on when those power reserves drain out.

Replenishment is up to the GM. Certainly not in the same combat scenario.

Death by Tractor Beam

All sub-light craft are wholly owned by any ship applying Torque-1 value to its tractor beam.

A ship can resist a tractor beam by engaging its warp engines to escape. It will accelerate by 2 warp factors per Combat Phase.

As each Captain alters their power levels, the other has the opportunity to respond until one or the other can respond no more.

A Tractored ship's tonnage **(m)** is multiplied by the warp factor **(w)** invoked to create a new mass **(n)** for the Tractoring ship to account for. *

Technically in-universe a ship gets lighter the faster it goes in warp space to near-zero mass. For purposes of game mechanics, they *effectively* gain mass as a relatively simple measure to equate and judge such powerful and competing forces under very rare circumstances such as these.

Tractor vs. Tractored Margins:

Zero-to-one	Tractored is free, 1st Phase Next Turn
One-to-one	Stalemate, both ships in for harm
Two-to-one	Tractored is firmly held
Three-to-one	is likely unbreakable.

≤ 1	Tractor takes damage
~/=	Both take damage
≥ 2	Tractored takes damage

*** Use of Emergency Torque causes Stress Chart damage to Tractoring ship per equivalent warp value, p121.**

Example

A 30,000 ton Marauder is caught unawares by a 100,000 ton, w6/8, Federation Patrol ship's default Torque 1 Tractor Beam. To escape, Marauder MUST use all Engine Points on movement alone. Not one point to shields, weapons or other.

This Marauder isn't messing around and drops straight to Warp 7, creating **(n)** = 210,000t. Marauder will end Turn 1 at Warp 6 while starting Turn 2, Phase 1 at Warp 7 velocity. That is true even if Patrol ship is holding Marauder at a veritable stand-still!

If the Patrol ship applied Torque 2, the Marauder would eventually break the tractor by a 05% margin. (200,000 tons vs. 210,000 tons.) (and costs Patrol 11 Engine Points)

If Patrol cannot muster 1.5 margin on 1st Phase next Turn, Marauder is free and damage is to Patrol.

If the Patrol Ship applies:

Torque3 yields a 0.42% margin (90,000tons) over the Marauder

Torque4 yields a 0.9% margin and almost holds Marauder in a 1-to-1 grip, a stalemate.

Torque5 yields a 1.4 margin and begins to hold their own.

Torque6 yields a 1.8 margin, nearly 2x and holding solid.

Torque7 yields a full two-to-one margin and the Marauder is firmly gripped. (22 E.P./Turn for Patrol!)

Torque8 nears a three-to-one margin for tighter control. (That's 33 Engine Points/Turn for Patrol!)

As Marauder continues to fight, both ship's engines will strain and hulls buckle.

For every ST Combat Turn a ship fights a tractor beam, stress points are applied to engines and hull equally per the Stress Chart. Damages are incurred *per phase* until the tractor beam is broken or one or both ships are destroyed or one yields to the other. Damage totals are allocated per the Movement Phase table on page 156.

The Involuntary Breaking of Tractors

Add Warp Factor and Torque Value together. Each ship is instantly thrown that many hexes from their prior position and in opposite directions from their starting hexes.

For each hex thrown, roll 1d10 to determine the exiting hex face (as the random explosive forces involved will chaotically vector the ships away from each other).

Roll 1d10... 1-3 = port aft; 4-6 = due aft; 7-9 = starboard aft; 0 = momentarily stationary.

Both ships are immediately crippled and offline! All crew must roll to get themselves and their stations operational, taking at least one ST Cbt Turn to achieve and 1d10 ST Cbt Turns to have full status reports available *-if stations are even working at all.*

All systems except emergency batteries and life support will be offline or otherwise non-responsive until diced for.

Note that the Starship Combat Turn and the Personal Combat Turn are not equal. FASA never defined the temporal duration of the ST Cbt Turn.
Suggest: 1 ST Cbt Turn = 3 Pers Cbt Turns
One Pers Cbt Turn for each ST Cbt Phase.

Blown Engines may brick or explode. In either case, the forces involved relieve all stress on the other ship, allowing them a smooth down-shift with no further damages.

The difference between a fused or exploded warp core comes down to the Engineer's Warp Drive Tech save. Nacelles can always be ejected. Just hope it's done in time.

Voluntary power down will still yield damages to all involved, but not as bad as blown engines. GM Discretion.

Warped frames

Don't forget the hull! Twisted frames, bent pylons, cracked saucers, tea cups all asunder, silverware strewn eveywhere... It only gets worse.

Warp/Torque Caveat: The Local Tug Boat

Tug boats are small and highly overpowered.

Local Tugs likely have a low max warp of 1-3 as they are near-system tenders with engines 'rated' for 'Torque 20' or even 30 so to shove the real big ships around in system or port.

Even still, a 5,000t Tug at Torque 20 value is only 100,000 tons. That is strong, but how strong does it need to be to nudge, guide or slow down an up-to million ton freighter?

Perhaps Warp Speed 1-3 = Tug Class 1-3.
Warp1/Class1 is Torque 1-10 Tractor Str (s).
Warp2/Class 2 is Torque 1-20 Tractor Str (s).
Warp3/Class 3 is Torque 1-30 Tractor Str (s).

GM's would call these as custom engines with E.P. values in the dozens despite their low speed, small size. (If a GM were to bother at all.)

A 10kton Class 3 Tug can slowly shove up to 3 megatons around, 2 megatons comfortably.

Local Patrols might make use of such ability for interdiction and related enforcement tasks.

Torqued-out engines should be considered for so-called Ptolemy class Tugs and similar.

While Space Stations have defined tonnages, Starbases would somehow need accounting for their masses, given such a scenario.

Planetary tractors would have the mass of the planet as its base number. It comes down to the Torque value and Engine Point cost.

In this case, Vol for example, would have been expending up to 160 power points per turn to hold U.S.S. Enterprise fighting with full (i.e. max warp) power giving them ~1.6 megatons of counter-force. While impressive... No.

With the planetary mass behind it, Vol could tractor even a moon but for the engine point/power cost. Vol was low on batteries and suffered direct and sustained phaser barrage, contributing to its ultimate destruction.

Vol certainly sparked, but I think bricked rather than blew. Given the power source as Spock speculates is immense; if Vol blew, it would have likely taken part of the planet, particularly the Village with it. Whoever built Vol installed fuse blocks, which is what we saw smoke.

What was going on with the Phaser energy that the structure was still there, but Vol was burned out? Perhaps the design was an energy sink and the phasers helped overload Vol's capacitors? Sustained ship's phaser fire in general (and especially so) is another topic altogether for an altogether other time. :p

TRANSPORTER

The transporter is a matter/energy scrambler, capable of recording the molecular and sub-molecular pattern of an object, disintegrating that object, and beaming it across space to be reformed at the other end. Both living and non-living material may be moved great distances at the speed of light in this manner. No receiving station is necessary for use of the transporter if reliable data can be obtained about the destination via sensor readings, or if a communicator can be used to provide a target signal.

The transporter can also "lock in" on distant items and beam them back to the transmitter station. Again, a target signal or sensor readings are necessary to allow the transporter to lock in on the coordinates of the desired item or person.

S–P = ship-to-planet
P–S = planet-to-ship
S–S = ship-to-ship
(S) = beaming within same ship

S–P or P–S /	bad atmospheric conditions or other local interference	+20
S–P or P–S /	transporter rooms on both ends operating	–40
S–S /	transporter only operating at one end	+10
P–S or S–S /	pickup / locking in using sensor readings only	+10
ANY /	beaming to location already used once in last 24 hours	–20
ANY /	beaming during low power situation (ship's normal power reserve below half)	+25
(S) /	any beaming inside same ship	+40

The range of the transporter device is about 16,000 miles, and the same things that block sensor readings block transport as well. In addition, transporters cannot beam through deflector shields.

Objects in transit (already dematerialized but not rematerialized) can be suspended as energy patterns for a time, but such suspension is dangerous as patterns can drift and be lost if care is not taken to maintain the transporter lock.

For each 5 minutes an object is held, the transporter operator must make a standard saving roll against his/her Transporter Operational Procedures skill level. If the roll fails, the lock is lost unless a LUC saving roll is made. Anything or anyone lost in this manner is irretrievable unless a desperation saving roll is made immediately by someone with a skill level high enough to succeed with a +40 modifier to the roll !

Transporting under normal conditions is no problem if the controls are operated by a qualified individual (Trans. Op. Proc. skill level 10 or above). Under ideal conditions, the transporter panel can even be set to operate automatically after a few seconds or minutes delay, allowing someone to beam himself with no operator at the panel.

The normal use for the transporter is for beaming down to a planet's surface, but it can also be used for beaming ship-to-ship. Beaming within the same ship is possible, but very dangerous since the fine control necessary and internal interference on shipboard could cause the transportees to materialize inside a solid object. Such a materialization would be fatal and could possibly cause an explosion.

A table of required saving rolls (on the Trans.Op. Proc. skill level) for some normal and special transporter operations is provided here.

TRANSPORTER OPERATIONS – SAVING ROLLS

No saving roll required for routine ship-to-planet, planet-to-planet, or ship-to-ship beaming. For other situations, make a standard saving roll on the Trans. Op. Proc. skill, with the appropriate modifications as listed:

Failure of a saving roll means that beaming cannot be accomplished and everything stays where it is. A second try can be made, but if it fails; something goes wrong and a transporter accident occurs. The result of a transporter accident is up to the gamemaster. Usually, it would result in loss of the object or person beamed, or in death through improper assembly at the target point or beaming into solid matter. Unless this risk is acceptable, no further attempt to beam can be made unless one or more of the restricting conditions change.

Federation transporters are of three types. The standard personnel transporter can accommodate up to six beings (or inanimate objects of approximately man-size or smaller) at one time. (All objects or beings beamed at the same time have one saving roll made for the group, with the same consequences shared by all.) This is the most commonly used variety.

Cargo transporters have 96 diamond-shaped transporter segments instead of the personnel transporters transmitter disks. These are used to transport bulky, non-living items. If they must be used for personnel, a saving roll on the Tran. Op. Proc. skill must be made even under ideal conditions or the transportee does not survive. (Cargo transporters are more coarsely tuned, with less fine control). Also, all penalty modifiers for adverse conditions are doubled!

Emergency transporters have 22 transmitter disks and are only used for emergency evacuation efforts. They have controls as fine as the normal personnel transporters, but are enormously wasteful of power. Thus, a saving roll is always required when using them, but penalty modifiers are not doubled.

Transporter usage must be set up in advance. It takes about 3 full combat turns to set up a transporter procedure on the console before the command to "energize" can be given. Once the slide is moved to begin energizing, it takes a full turn (10 seconds) to dematerialize and another full turn to rematerialize elsewhere.

During this time, the characters being beamed cannot move, communicate, or take any action whatsoever. However, they are invulnerable to most normal harm during this time, though they can be seen at the transmission end while dematerializing, and at the receiving end while rematerializing.

Though someone is on duty at all times in the transporter room, a call for a quick beamup will take 2 turns to process unless communication is established, sensors are locked on the target to be beamed up, and the transporter panel is ready. If this is the case, dematerialization will take place at the beginning of the next combat turn.

Transporter Failure

"Disassociated Condition"

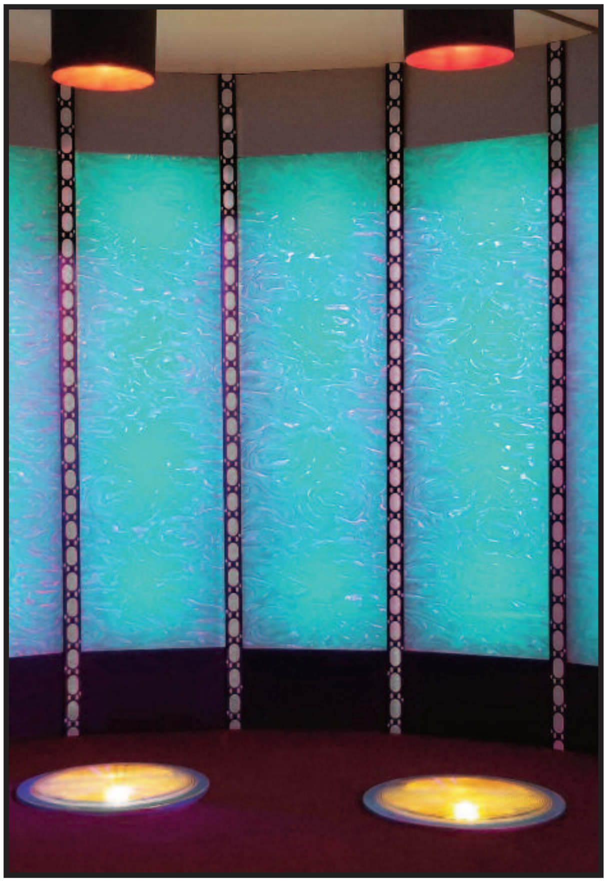
"...Are the Transporters beaming up yet?"
"Not 100%, Captain. We beamed down some inert material and it came back in a disassociated condition. We wouldn't dare try it with people."

For whatever reason, Transport has failed! All is not lost. It could be that 'nothing' happens. It could be that one or all persons in the chamber are pureed alive while conscious.

Table 1a[4b]

For LUC Mod purposes
01 is floor, 00 is ceiling
Table does not flip

d%	Fail Result
01 - 08	Ultra-Fatal Table 1b, Table 2a
09 - 34	Lights dim, no glitter, chamber reset
35 - 50	*From ship:* All are beamed (1d10)d10 km/mi away and/or Hi/Lo[2, 4d] *To Ship:* GM Discretion[3]
51 - 58	Pattern Lost[4c], Table 1b
59 - 67	0 - 6 Qty Pads Arr/Dep, All safe, Table 1b
68 - 76	1 Pad Explodes[1, 4a], Table 1b
77 - 82	0 - 6 Qty Pads Explode[1, 4a], Table 1b
83 - 92	Partial De-Mat; equipment? GM Discretion.
93 - 00	Disassociated Condition[4c], Table 1b



Transport Failure cannot have happened in a character's past, only in present-time scenarios.

TABLE 1b

d10	Pad # or Qty
1 - 3	0
4	1
5	2
6	3
7	4
8	5
9 - 0	6

GMs: Consider spinning the pad# before rolling. Pad 6 is not more prone to explode than the others. NO FAKEOUTS if you don't want to lose players!

1 Pad explosion: (1d10/2)d10 damage (to legs) from burn, fragmentation and concussive force injuries. Neighboring personnel are unaffected.

2 Coordinates are off by a lot. It's that Y-Axis you have to worry about. High induces falling damage. Low induces material displacement, whether earth, liquid or even over a cliff edge. Each person may be separated by km/mi or all together. GM Discretion.

3 Knocked UNC for 1d10 mins/hrs/day/wks. Possible physical damage from whiplash and high inertial stresses. Suggest up to 10d10 FATIGUE/STUN.

4 With GM Discretion, Player can
  a : Use LUC Pool to reduce damage from pad explosions, mins apply.
  b : Use LUC Pool on Table 1a at 1-1 point cost. 1pt LUC = 1% either direction on table. Player lists Most-to-Least fave result, (Natural, + or -), GM rolls Hi/Mid/Lo for fate.
  c : Make LUC ATT save vs. Pattern Loss, Disassociation. Save? Goto Table 2a and hope.
  d: Make LUC ATT save vs. distance/danger factor, GM determination.

No suggestions for LUC Fails or CRIT Fails are here offered. It's already bad. Say goodnight.
Either : Fail and suffer the consequences or make it and thank the Great Bird of the Galaxy

> "What about the Transporters?"
> "They're still reported unsafe."
> "Transporter room... Try using overload power on the Transporters. We've got to get them working!"

Straight roll
No LUC Mods

Table 2a, Transporter Damage

Roll	What Happened?	
01 - 10	Ultra-Fatal	Per Fatal Wound, but 10d10(10d10) instead.
11 - 25	Fatal Wound	Per Mortal Wound, but 1d10(10d10) across ALL Attributes, except LUC, PSI
26 - 40	Mortal Wound*	You live but damage is too severe for healing. PERMANENTLY lose 10d10 from one (or more) Attributes. Points so lost can never be regained no matter the training.**
41 - 65	Major Wound***	Lose 1d10 from one Attribute per Mortal Wound. Can be regained with training, but Species Maximum is forever out of range.
66 - 80	Serious Wound	Lose 1d10/3 rd from natural rating: STR, END, or DEX. Can be regained with training and without penalty.
81 - 00	'Tis but a Scratch	Take your crummy Purple Heart and get outta here. Genuinely sick people needed that bed, ya jerk!

*A Ultra/Fatal/Mortal Wound may not necessarily kill, but likely lead to the immediate retirement or permanent hospitalization of the character. Immediate GM consult required.

Fatal Damage can be evenly split across Attributes or piled-on per GM Discretion.

**You are Ultra/Fatally/Mortally struck!
Roll 1d10 for the Attribute affected.

1 - 2	STR or END (roll odd/even)
3 - 4	INT or PSI (roll odd/even)
5 - 6	DEX
7 - 8	CHA
9 - 0	COOL

1d10 damage is subtracted from your Species Max (or 99), not your natural rating.

You roll to see that your STR is affected and by a 50pt loss! Your pre-accident STR was 70. Subtracting 50 from your Human Max of 99 is your new STR 49.

That difference is 21 points lost to your STR 70 and you can never raise your STR to 50+

If the roll were 20pts lost, that makes a STR 79, leaving your STR 70 technically unaffected. However, the damage to your musculature and body is such that you can never train to STR 80+.

*** A Major Wound subtracts 1d10 from both your current Attribute and Species Maximum.

In this case, your current damage can be healed with training, but you can never break that lost Max value.

THESE RESULTS MAY MODIFY YOUR CURRENT TERM ASSIGNMENT

Severe damage must be transferred to the nearest starbase or equivalent facility.

Roll on the next chart to see how long your recovery time is expected to be. Patients sent to hospital are likely to see the balance of their term spent re-assigned to Starbase staff as an Instructor or other duties.

Table 2b, Recovery Time

Release From Hospital/To Duty

CONDITION	LUC ROLL			
	CRIT SUCC	SUCC	FAIL	CRIT FAIL
SCRATCH	1d10/2 days	1d10 days	1d10/2 weeks	1d10 weeks
SERIOUS	1d10 days	1d10/2 weeks	1d10 weeks	2d10 weeks
MAJOR	1d10 weeks	1d10/2 months	1d10 months	2d10 months
MORTAL	1d10/2 years	1d10 years	10d10 years	Never
ULTRA / FATAL	1d10 years	10d10 years	Never	Never and a day

"They came back alright, sir.
In my opinion the Transporters are
now safe for human transport."

"Landing parties 1, 2 and 3 report
for immediate beaming down to
the surface of the planet..."

POWER TO PADS

Scotty regularly mentions he has enough power for shields or phasers or whatevs, but not enough for Transporters. Due to space constraints I'll leave my reasonings for you to later puzzle out and apply your own interpretations and modifications.

To energize one Transporter Chamber requires 1 Engine Point per Pad (whether used or not) and 1 point to energize the console. Typically, one Chamber will always have the Console powered in standy-by mode at all times. The Operator then calls on full power to the chamber as needed. Each person or equivalent mass then transported requires one additional Engine Point. Thus, a 6-person chamber requires 7 points to activate and up to 13 points per 6-person team beamed out (per Ship Combat Phase). Emergency Transporters must have their own batteries for this to work in emergency situations. No point to having them otherwise as no ship can have the power needed in terms of in-world musings or game mechanics.

Material Displacement

This is one for you, humble GM. If they beam low into a floor, damage will be to feet and legs. If near a wall, damage could be to arms or torso portions. If high, could be head and shoulders are beamed into a ceiling. Or is it a tree branch or limb or even another being?

Then, there are material considerations. What happens when additional mass is merged with standing mass? Do we get a nuclear explosion of an $E=MC^2$ nature? Do the materializing molecules shift existing molecules around in their favor resulting in something of a relief explosion and a bulge inside a material where the person just arrived?

If beamed into water, do you transpose the water around you or is it fused into your being resulting in a soggy human weighing some several hundred pounds that immediately bursts with cell damage? Do we have another Einsteinian explosion on our hands? The air does part for a person materializing.

If partially beamed into a metal floor, are you now fused to that floor where you connect? Or are you loose and free to flop around in agony? Do the feet on the ceiling below fall or stick to the surface?

Suggested viewing includes our own Gary 7 in "The 4D Man" where he discovers he can pass through objects with a terrible side effect. One early gag has him stick his hand into a steel block -and get stuck! The fingers grow white, pain and panic sets in. It's a good one.

But no, the actual effects are up to you. Some nd10 of Wound Damage is suggested as this would be normal surgical repair as opposed to Disassociation and bodily re-molecularization,

Also, do consider the effects on your game and the character and players. Was your game about transporter damage and can you as a GM take that impulse and run with it?

The Table 1a Danger Chart yields:
25% Nothing, Try again
35% Miscalculation, Some go/others stay
15% System Error, Pad go boom
25% Death, or good chance of

That makes:
60% ok to bad
40% very bad to very, very bad

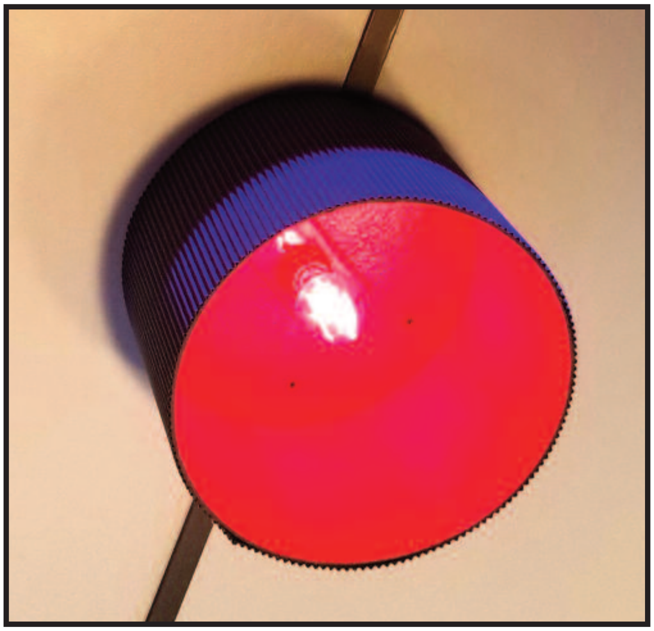
Having the table break in player's favor shows the GM is merciful. 30% of Table 1b goes to the player with no effect at all.

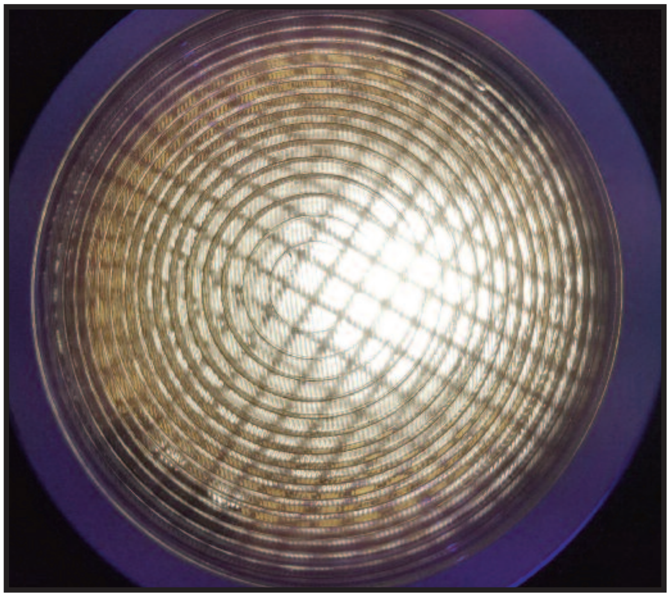
If there is a failure, the one question I have: Is the dice failure due to faulty equipment, operator error or both? If faulty, who certified it for use? If operator error, who let them near the sliders?

What is the consequence of failure? Is the operator put on leave while an investigation is initiated?

What happens if it's determined to be operator error? It was their dice, after all. The responsibility to ensure equipment is in order is also theirs.

Are they then off to the brig on charges of involuntary manslaughter? What happens in the real military when someone dies? I bet there is a bit of a kerfuffle involved.





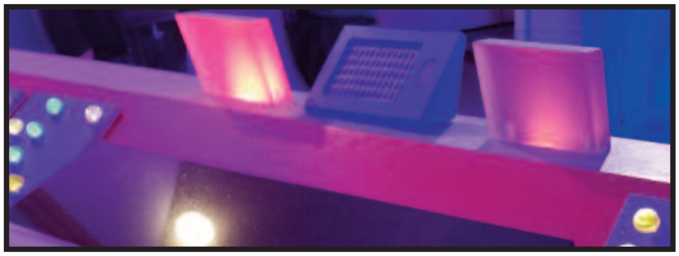
Pattern Degradation

In Dove, Scott suggests he can keep the Klingons suspended indefinitely. Another time, Spock mentions to McCoy he's unaware of any test involving long-term stasis, but that it would be 'fascinating'. Kind of sociopathic of him there on that...

In TNG, Scotty himself stays alive for 75+ years while his buddy's pattern has degraded beyond recovery. In Lorelei, Scotty says your pattern 'disperses to space'.

And obviously we have STTMP showing us a glimpse at the ugliest of possibilities. That that occurred between two locked Transporters is the worst part of it.

While suspended you are in a state of non-temporal, non-experiential/pseudo-existence. If you don't materialize, you will never know it; you were already gone anyway.



To Galileo 7

Chief verbally warrants to Kirk that Transporters are 100% safe and operational. Kirk accepts Chief at word and orders Landing Parties 1,2 3 to action.

Let’s say one or more of those parties suffers harm by Table 1a. How liable is Kirk for not taking personal steps to ensure Chief was correct; such as even glancing at the console to ensure no error lights or signals that Chief may have missed?

Rather, Kirk walks in and scoots out in a half-turn without concern. Is Scott on the hook as Department Chief, though not there? What is the chain of responsibility? Did Kirk cut Scott out by accepting the verbal assurance?

With any show failure, there were no physical after-effects except when something else was going on. Mirror Mirror swaps universes, so they felt dizzy for a second. Not much worse.

Enemy Within is a very scary transporter accident, but should it be so common a result as to be part of a table?

If it had happened before, it would have been in Starfleet records, if not in the testing data as a possible circumstance.

So technically, split in good/evil is not a possibility until that episode and then it is moot as it will be a known factor with that ore dust contamination. VOY blended 2 characters, but I don't know those details.

Bad transporter was always a specific plot device (Doomsday, Tholians, Dagger, etc). While a random table generator can be a fleet-footed GM's best friend, it can also send a game plot in ANY direction. A factual die result is a hefty weight to balance.

In all of TOS/TAS, there was never one person or creature physically wounded by Transporter malfunction or Operator error. Yet they were far from 100% perfect or functional. Were Spock or Scott not at hand, Kyle may very well have lost some people.

Transport failure tends to create a smoke-puff and repair delays, suggesting there is a fuse that keeps them from failing during active transport of a pattern.

That gets back to what 'should' happen. Definitely food for thought...

What specifically is 'Transporter damage'?
Do you suddenly have a liver cell in your toe and a toe nail cell in your brain and brain cell in your forearm multiplied by up to 1 trillion cells? Is it at the molecular level? How is that damage 'healed'. Can it be healed short of magic spells? This is a tricky one even for a four-dimensional surgeon!

As the Transporter alone can swap your brain cell tissue with your liver cells and actual toe nail clippings in place of what was your heart, Transporter damage is unique and therefore takes dice off your Attributes rather than 'normal' Wound damage off the END.

Granted, your END will take a hit if your cartilage is turned into epidermis and your bones into mucus cells. Your INT will be hit from the aforementioned toe nails now integrated into your brain stem. CHA is lost when your tongue is now a thumb and your nose something unmentionable. Shall I go on with other detriments for each ATT? lolz. It ain't pretty stuff.

No wonder McCoy is paranoid. He's read the autopsies!

There must be some risk involved
McCoy is paranoid for a reason, however unrealistic or 'old-fashioned' Kirk may say he is.

To serve the story, pointless Transporter death is pointless. You either go out like Spock saving ship and crew or as Han Solo, a checkmark devoid of meaning or weight.

A character's death, even an NPC's, should have a payoff. An NPC stumbling over an exploding rock pays off by alerting the PC's to the danger, saving their lives. Any KIA serves the greater crew however bad any one given death may suck.

Then again, crud happens. Starfleet knows the inherent risks and accepts them as trade for their greater service. Yes, 'meaningless' death is real life, but this is a game of fiction designed as escape from real life.

For a GM to employ random Transporter death, a storyline needs be at the ready.

Whether it's simply role-playing the musings of death and life and such for an entire session; or perhaps the death points to a hidden danger no one knew about and you the GM were just waiting to spring the story.

Whether it's any number of underlying reasons, some story point/arc should be served or become evident. Otherwise, random death may boil down to Killer GM Syndrome.

Even though a GM may have stories A, B, C lined-up and ready, it's for reasons such as those above that it's a good idea to have several side-orders ready on the burner.

Transporter failure is quite the little humdinger of a campaign twister to say the least.

Safety Factors
Day of the Dove shows Klingons use silent Transporters. In keeping with Fantasimulation Associates' tradition, it is novelist John M. Ford in his book, 'The Final Reflection' who suggested the Transporter sound we are familiar with was safety-related, a concern the Klingons did not share.

Still, if Klingon Transporters were as bad as 1:100, then with an average LP of five, every 20 transports results in one klingon dying horrifically. No wonder they're so angry all the time! Every fifth to tenth mission or so, one of is guaranteed to be pureed. Surviving an accident could be worse than dying in one.

Safety would increase over time to the point of the nonsensical Picard shot of hundreds of people walking into and out of transporter beams seemingly all at once. That is a nightmare scenario waiting to happen in my books.

Getting to Cage and TOS era, safety is going to have to be in the one-in-a-million and better for the theoretical disbursement of the tech over more area and circumstances.

If Federation-wide, dozens or hundreds of people are getting twisted, even out of billions, it's going to cause a stir and revolt.

I hold the Federation in higher regard and expect full transparency on things like this. The UFP is not a cover-it-up kind of sociopathic society. Truth and honesty must always triumph or you do not have the UFP as evinced by Kirk, the single-greatest storytelling representative of that mindset.

Back to Transport failure... Would it be 6d10, roll all zeros and you're toast?

Safety-minded personnel, especially in early days are going to be overly-sensitive to potential failure as it is they who are then personally responsible for the death of someone -even if not legally held so.

By TOS-Kirk, things appear much more casual suggesting a roll of all zeros on 9d10 perhaps?

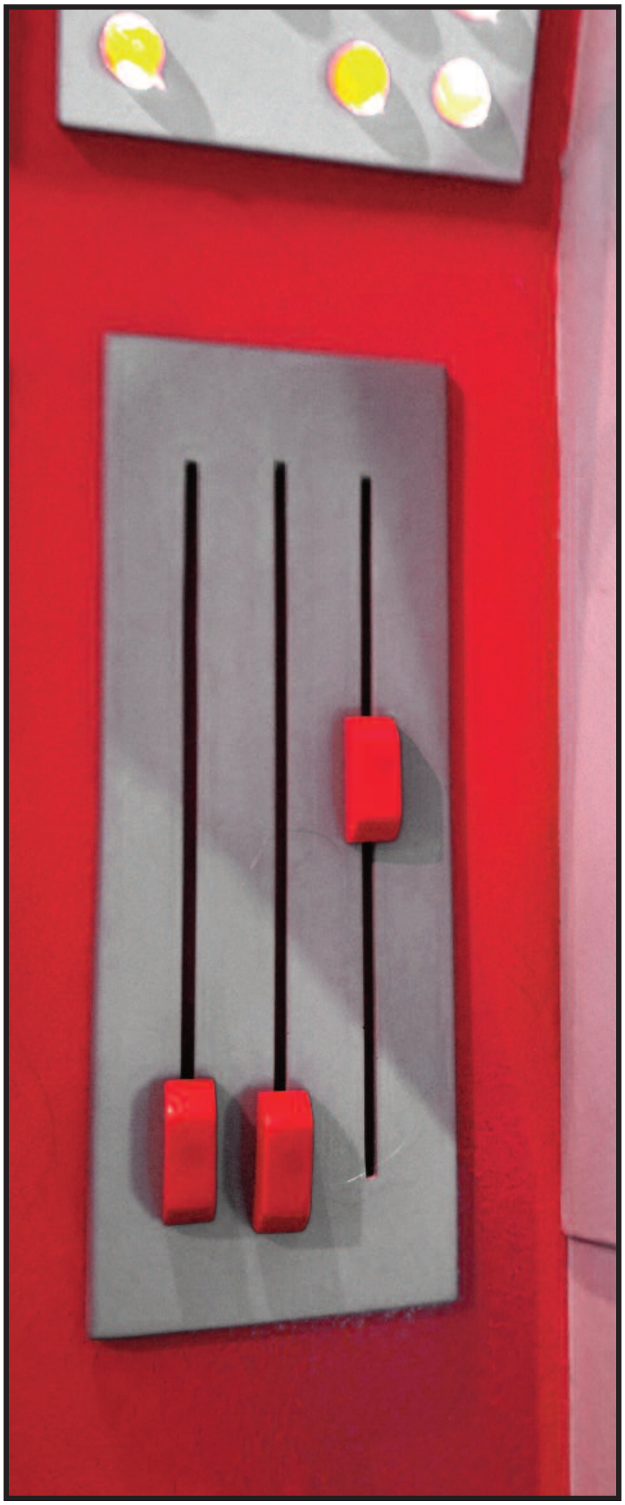
No. Even if statistical, the operator and equipment condition are the direct causal factors for a PC’s life or death to hang on.

Regardless, the immediate tear down of the system and off-lining of all units while the cause is investigated -like the Navy does with their planes when one fails, all stop flying. That's the kind of thing where once-ever is too often (outside of unusual influence/circumstance).

Going to the series, failures were always puffs of smoke until they weren't and transport initiated correctly on the very same pads.

Apparently the smoked circuit wasn't really needed or fixed itself somehow as the person, often Kirk, would beam in on the same pad that puffed not moments ago. Repairs were always to the console and never the pads -until TNG sometime (iirc).

Transporter Operation.
In the end, there was often only one person on duty. Eventually even no one via pre-programming. The tech will evolve over time.



Even a few short years is apparently enough and to the point where speech is audible in transit and personal motion irrelevant by TWoK.

The two guards in Children Shall Lead could have used an alarm beep confirming the planet below was gone. Or a second operator or a more experienced operator than distracted-Kirk casually throwing the sliders.

That Spock didn't immediately attempt to save the guys may have suited the story, but was not otherwise realistic.

Those guys had a good chance if the script didn't demand they die. Beaming them back gasping would have been a high drama moment as Kirk goes off to confront the kids from there.

Where/when and how S.O.P. changes in-universe is a matter for debate. Going from two operators and maybe an off-screen technician, to two, to one, to programming. We certainly saw that evolution on screen, so should be able to quantify it all.

Relatedly, it was Teratin Incident or Lorelei where they first used the Transporters for reversing damage with a saved pattern. Watching the series specifically for Transporter milestones, which are then translated to a timeline, would be a task for sure.

Here's another biscuit to chew. What prevents Transporters from being used for assassination? It would occur to the Klingons. Mirror^2 should be all over the notion. Mirror Scotty could have beamed Plassus and Droxine into a wall and no one'd be the wiser.

That beaming is trusted at all in Mirror^2 strikes me as odd. So the operator is punished/executed for killing you? Big deal! You, the Captain or random shmuck chosen on a whim over a bet, are dead -and likely painfully so.

Transporters do not however make a good combat weapon for the time and limited targeting available. For assassination, there is no escape from a maniac in orbit with a transporter and a grudge -or pocketed fee in hand or waiting.

Examples

"...Are the Transporters beaming up yet?"
"Not 100%, Captain. We beamed down some inert material and it came back in a disassociated condition. We wouldn't dare try it with people."
...
"What about the Transporters?"
"They're still reported unsafe."
"Transporter room... Try using overload power on the Transporters. We've got to get them working!"
...
"They came back alright, sir. In my opinion the Transporters are now safe for human transport."
"Landing parties 1, 2 and 3 report for immediate beaming down to the surface of the planet..."

With that, ~18 people are now trusting their lives on a Lt's 'opinion'. The Lt. beams objects in, gives them a cursory eyeball from a distance and qualifies the Transporters as safe for humans. Ummm...

This one interaction with danger raises so many questions left unanswered. Testing, certifications, 'opinions', legalities, technicalities, ethics, morals and a whole host of related issues. Amazing.

And that's just Galileo 7 Doomsday and Tholians pop into mind for immediate study. Enemy Within an obvious one. Gary 7, Dove and Dagger for procedural/capabilities...

"Ready to Beam, sir."
With those fatalistic words, the Doomsday Machine must have picked up the energy surge and fired its slicer beam at that moment causing two pads to go poof!

Looking into the chamber from the console, we'll call front left pad 1, front right pad 2, making 3 and 6 on the sides and 4 and 5 farthest back, all counter-clockwise.

It looks like Pad 6 and 5 went up in smoke about the 16:50 mark at which point Spock orders Kyle to initiate repairs.

41:58 "Transporters are operational"

43:20 "The Transporter is not operating at 100% efficiency. 30 seconds is very slim timing."
"It's a chance I'll have to take."
"A cranky Transporter is a mighty finicky thing to be gambling your life on, sir." Says Scotty as he steps into a beam.

44:20 "What's the matter with that thing?"
"It's a power drain somewhere, sir. I almost lost you."
"It'll never work like this. It's the main junction circuitry. I'll get it."
"Bridge. Transporter malfunction."

Circuits are sparking in the Jefferies tube. Sparks stop.

45:00 "Bridge. Transporter is operational, but this jury-rigging won't last long."
"Captain, Transporter operational but just barely."

46:11 "Energize."

Pad 6 poof. Scotty back in the tube.

46:40 Severe sparks fly in tube. Pad 2 poofs.
"Try inverse phasing."

47:05 Pad 5 poofs. "Try her now, Mr. Kyle."
47:40 Kirk comes in on Pad 1.

The suggestion is that if your pattern is lost, you simply fade away into the ether, between locations, never knowing any different.

STTMP says otherwise for big-screen impact and drama.

Tholian at 10:38
Spock and co. twinkle in the chamber a moment, but cuts back to them shifting around on Defiant waiting for the beam.

Scotty tries 3 if not 4x depending on how you count it before heaving a big sigh of relief that they came through as if it were close.

Kirk sparkles once, cuts back to Defiant which fades out taking Kirk with it. From there, only a matter of him being at the right place and time when they attempt to beam him, no particular troubles.

"Scotty. Set automatic return for me... Ten minutes should do it."
"Captain. The Transporter retains the memory of the body's molecular structure. Will it apply as well to your present height?"
"Kirk to Enterprise... The Transporter beam apparently returns our molecules to normal spacing."

Not much else to say on this one other than that trick didn't work on the Teratins. However, it's speculated that their size became a genetic trait, not the constant exposure to waves that are 'complex and beyond (Spock's) experience'. "Spiroid waves" also apparently have no effect on Transporter beams.

Lorelei
"Perhaps the Transporter is the key. It holds the molecular pattern of our original bodies when we beamed down to the planet."

"Spock. Can the Transporter be programmed
to re-pattern us as we were?"
"Possibly. But the odds against us are 99.7
to one."
"But this has never been done before.
Suppose it fails?"
"Their patterns will break up and scatter
in space."

Well, they rolled good on that one. Uhura shouts they are losing the patterns, but no probs.

The Cage
Here we see certain pads can be activated. In another, we see that items can be left behind.

Savage Curtain
Scotty mentions a dying mass of flesh, but that would have been the lava's fault, not the transporter had it happened.

Obsession
More tame than I was thinking. Shock waves from the anti-matter explosion rock the ship as transport is underway causing Spock to switch to Circuit B.

“Reset. Energize.”
“All decks, stand by. Shock waves.”
The ship is shaken.
“Do something!”
“We are, Doctor. Cross-circuiting to A.”
“Got them. A piece of them, anyway.”
“Cross-circuiting to B.”
“Crazy way to travel, spreading a man's
molecules all over the universe.”
(Finally the swirly bits solidify into two men.)
“Captain, thank heaven.”
“Mister Scott, there was no deity involved.
It was my cross-circuiting to B that recovered them.”
“Well, then! Thank pitchforks and pointed
ears. As long as it worked, Jim.”

That one interaction of Spock and Scott provides an interesting game mechanism at play.

Is Spock adding a percentage of his skill to Scotty's? Did Scott fail and call on Spock to gain a second attempt? When Scott says "reset", did they both fail and get a second chance if the pattern was initially saved?

The 4.0th Revision Fail Flowchart suggests a similar situation to this scene. It also suggests that Fails should get a 2nd chance to succeed, at least in later years as more redundancy is built into the system. "It was my cross-circuiting to B that saved the day."

Spock may have had a LUC roll in there, too! Further analysis is needed. :)

Last Example: More Tribbles, More Troubles
2:40 Scotty throws the sliders, “Locking on.”

3:37 After 9 Klingons torpedoes, the ship explodes. “Scotty, have you got that pilot yet?” “I don’t know yet, sir. That blast decalibrated the integration parameters.” Throws sliders.

4:33 Spock “Captain, we’ve been hit by a stasis projection field... (it) disables all higher order field and warp functions.”

5:00 “Scotty, did you get that pilot?” “I’ve got him in the beam, sir. But I can’t integrate him. The system’s been dis-coordinated.”

7:35 “Scotty, can you integrate that pilot now?” “I think so, Captain.” “Have you got him?” “Just putting him together now, sir.”

Throws sliders last time and Cyrano Jones materializes with Tribbles in tow.

Any time there are issues
A person can partially manifest and fade away up to several times as either a central blob of glitter or the suggestions of an outline.

Once a pattern is acquired (they have dissolved in one location but are mid-transit), the operator can call for a system reset, pause and do another full attempt at least once. Enemy Within suggests serious time delays as well.

Once a pattern is captured, it seems the data must get sloshy in some way, maybe, so that the operator must bring one set of parameters to match another, 'dialing-in' or fine-tuning the materialization into given safety margin where the computer can finalize the details of the pattern-matching and re-materialize correctly. Maybe.

Scotty's most common phrase is "I've got a piece of them, anyway." Mudd's Women, another one of note.

There is always a sigh or look of relief on faces with a few admissions that it was a 'close call' and 'you might have been lost'. Lorelei was the only one where consequence is detailed.

Clearly in-world there is operator fear/concern on losing someone in tricky circumstances. Other times are little other than the casual throwing of sliders -suggesting total complacency with the process as if no more dangerous than standing at a cross-walk.

There are numerous close calls. There are a number of factors affecting each situation. None are commonplace.

Above all else we see the demands of the script interfering with the 'natural processes' that would normally unfold in a real world situation. A character must die/survive, so the story is made to fit the end.

Of course in our game worlds, we need to expand the potential and allow for death and dismemberment clauses -that makes for good role playing as opposed to good TV.

There are far too many TV NPC's that would have lived in a game scenario for the attention they would have gotten as fellow crewmates as opposed to disposable story points they were required to be for television purposes.

And there are far, far too many Starring Roles that should have died, but can't because they are the starring role and immune to ultimate danger, being only affected by circumstantial and/or momentary hinderance.

So. Where, when, how and over what time scale would a danger table function?

Feature One

It must get safer over time, whether years or decades with occasional leaps such as TWoK to even TUC showed distinct changes.

It could be that risk is more role-played than mechanical in nature. The suggestions and stories of bad transports.

Feed random scuttlebutt here and there. Roll many dice behind screens for every transport whether you look at them or not.

Give someone a history involving knowing someone who died on the pad. (That gives me a new tweak for the Lifepath tables!)

Another consideration is the totality of malfunction. Is it one pad in six, some or all transportees that die? Or do some live and others die? What is the disposition of their persons and locus?

Danger over Time

As to making Transporters safer or more dangerous over game years or a given scenario or campaign, such as the earliest days of the Materializers vs. movie era, it is suggested looking to the **Skill/Die Mods of Book 1, page 8**.

Perhaps in the earliest days, Materializers are ***Impossible*** for a base +30 to roll against. Only the Doctorates and Masters would operate the systems, and two or three of them every time with continuous system tuning and maintenance.

By late Cage/pre-Kirk Transporters have gotten safer, but still present an ***Unexpected Surprise*** with every operation for +15 base roll.

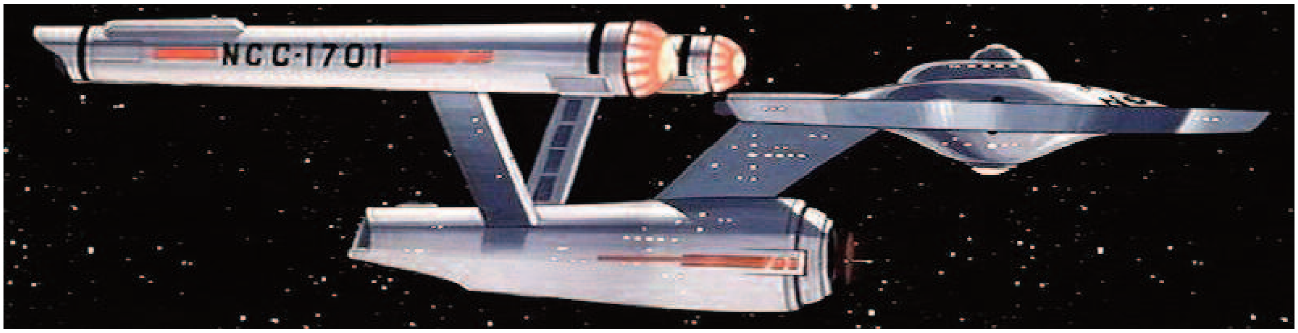
By WNMHGB, maybe Transporters are getting to be ***Normal*** at $^{+/-}$0 dice and by season 3 get to be Easy for a -15, making a skill 10 a base 25, equivalent to registered Nurse/Associates Degree'ish. (With 'Doctors as 'Licensed Professional' i.e. 'Surgeons' at 40 skill points.)

By TAS, Transporters can restore saved patterns. By TMP, we hear and see those two go on the pad as they did. For some reason, it always seems like Kirk and Saavik are the first time we see and hear action during active transport.

If the air between Kirk and Saavik containing the sound waves was captured in addition to the person, then water or other atmosphere or substance in the immediate vicinity goes too.

This tells us that if beamed from a body of water, water would splash down immediately surrounding the beamed person. See Whales, Star Trek IV, The Voyage Home.

This is also demonstrated in STIV when Doctor Taylor jumps at Kirk when beaming. They are both very, very lucky she didn't do that a couple decades previous to then! ■



WARP DRIVE

The galaxy began to open to exploration in earnest with the development of the warp drive by the Alpha Centaurian scientist Zefrem Cochrane. Warp engines produce power through the controlled annihilation of a delicately balanced matter/antimatter mix. Part of this power is used for most ship's systems and the rest diverted to propel a star vessel at faster than light speeds. Klingon, Romulan, Gorn and other starfaring fleets use variations of the same warp drive system known to the Federation.

The matter/antimatter mix must be carefully controlled and contained. For safety's sake, most ships equipped with warp drive components place them away from the main body of the ship, mounted in nacelles on outriggers or other supprots. If the matter/antimatter mix gets out of hand, the nacelles can then be jettisoned to explode away from the ship itself.

Warp speeds are measured by "warp factors", which denote a geometrical expansion of speed rather than a linear scale. To put it simply, where "warp factor 1" represents the speed of light, warp 2 is 8 times lightspeed (the cube of the warp factor number), warp 3 is 27 times lightspeed, warp 4 is 65 times lightspeed and so on. In actuality, however, these speeds vary according to the four-dimensional "shape" of space in a given area. Thus, a warp drive ship may cover much greater distances than these at a certain warp speed.

UNDERSTANDING WARP DRIVE

Stardate Magazine / Jan-Feb, 1985

by Pete Rogan

Everybody knows how warp drive works. The Captain says, "Warp 3," the helmsman repeats it, and the ship slides up to 27 times the speed of light, the cube of the warp number.

But a *STAR TREK* gamemaster has to know more for a campaign. A gamemaster has to know (or seem to know) more about such details as how a starship moves from one place to another. For the dedicated gamemaster, here is a look at warp engineering, the construction of a warp engine, and some details on their little troubles.

The Basics

Warp drive evolved from a breakthrough in physics made at the beginning of the 21st century: the discovery of Artificial Gravity, or Magnatomics. The ability to manipulate gravity and create antigravity led Zefram Cochrane to discover the warp drive principle.

All objects with mass distort space via gravity. In a gravitational field objects in motion change their paths, light bends, and time slows down. Cochrane found the same holds true of 'synthetic mass' created by a strong artificial gravity field. Experimenting with antigravity to observe the effects of a synthetic antimass, he discovered that when a strong gravity field was generated in the same location as a strong antigravity field, they produced a unique distortion in space/time: a warp. A warp can travel through space faster than light, and when the antigravity field reduced the mass of the generator to about 0.001% of its original value, the warp could carry the generator and a good deal more with it.

When the first Cochrane warp drives were built, some basic elements were found to be true of all of them:

The energy needed to power a warp generator capable of carrying a starship is so great that only matter-antimatter annihilation, a tempermental and dangerous power source, can provide it.

A ship with warp drive 'bypasses' the speed of light by riding the warp at the edge of subspace, a hypothetical region just beyond normal space. The effect is characterized by some California warp engineers as 'star surfing'.

When a warp drive is engaged, it **immediately** propels a ship to the speed of light. A ship must be very close to this speed at the time of warp initiation in order to prevent tearing the vessel apart. Magnatomic fields were found to be necessary in warp driven ships to cushion the crew against this acceleration.

The smaller the remaining percentage of a ship's mass left by the drive, the faster the ship will go, to a theoretical limit of zero mass at Warp 15, 3375 times the speed of light.

The large gravity generators needed to balance against the antigravity generators make a warp-driven ship fantastically heavy with synthetic mass. The larger the mass that needs to be removed, however, the finer the control over speed.

The ship, even though moving faster than light itself, can still receive normal light and radio waves—very badly distorted, of course. Computer rectification cures this effect, and allows crews to see outside their ships at warp speeds.

The major problem with early warp drives was sublight propulsion. Years passed before reliable impulse engines could get a ship up to and back down from warp speed in less than many hours. But warp drive had many advantages. It could collect matter and antimatter from space via magnatomic fields, literally never running out of fuel once engaged. Warp engines were also simple to build, easy to navigate and steer, and most importantly, they opened the stars to the people of Earth.

Over the years several advances were made to improve on the warp drive:

A warp was created to carry a message, as opposed to a ship, at Warp 15. Subspace radio was thus created to link worlds together more efficiently than by ship-borne mail.

Dilithium crystals, not found on Earth, act as natural lasers in the presence of great energy, making splendid conduits for the power needed to run warp drives, thus superceding the old-style magnatomic fields. Larger and faster ships were now possible.

More precise controls, and a better theoretical understanding of the warp principle, reduced the dangers from uncertainties in design and the weirdly distorted environment of warp flight.

Some drawbacks were also discovered. In regions of space poor in interstellar gas and dust, warp engines cannot maintain high speeds. Large scale gravity events, such as gravity waves from the galactic core or a more localalized disturbance, can also prevent the drive from functioning or even cause a catastrophic accident. If two engines are in close proximity to each other, as in the case of a dual-drive ship, one engine may tend to produce irregularities in the warp of the other. Multi-engine ships thus have to be carefully tended, tuned, and balanced.

But in spite of technical difficulties, the warp drive became a popular instrument of interstellar travel, and nearly every race encountered by the Federation has used or adapted it to their own purposes.

Inside A Warp Engine

A warp engine, whatever its external appearance, always has six main parts:

A. **The collector** projects a magnatomic field ahead and on all sides of a ship's course, drawing matter and scarcer antimatter, usually hydrogen, towards the engine.

B. **The matter-antimatter seperator seperator** sorts out the two kinds of matter and begins to heat them to plasma temperatures, the better to make them react.

C. **The intermix chamber** where annihilation of matter and antimatter produces energy, heat, and radiation. A *lot* of energy, heat, and radiation.

D. **The energy ducting system** uses dilithium and backup magnatomic fields to channel energy from the intermix chamber.

E. **The warp generators** create the huge gravity and antigravity fields that cause the warp around the ship.

F. **The cooling system/matter dump** vents waste heat and surplus matter from the engine back into space.

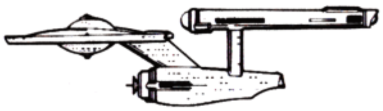
Originally warp engines used a great deal more matter than antimatter for power, with ratios as high as 50 to one. They produced a great deal of heat which was difficult to dispose of. Current warp engines use a one-to-one matter/antimatter ratio, venting 90% of the matter collected through the cooling system. A warp engine leaves behind it a stream of highly ionized hydrogen, which cools rapidly but leaves a tell-tale trail that sensors can trace. Such a trail becomes too faint to detect after about 24 hours.

Normally, automatic controls monitor an engine's performance, but for each of the six main components the Engineering deck has readouts and manual controls. If, say, the engine were running a little hot, the collector's field could be expanded to channel more matter through the cooling system to dump more heat. Engineering also monitors and controls two other important warp engine features:

The secondary engine power source provides the energy needed to heat an engine from cold shutdown to normal 'hot' operating status. This is usually a 30 to 60 minute operation, and engines are only put on cold shutdown for extended port calls or emergencies.

The warp engine automatic monitoring system itself. If an engine says it is running hot when actually and it is not, the engineer had better know about it before something unfortunate happens. The monitors on the automatic controls say if they are working correctly or not, giving backup readings on all the engine functions. If the automatic controls fail, the engineer may have to handle their functions manually until repaired.

A vessel with two engines has the additional task of keeping them balanced. Because warp drive depends on very precise control of a ship's mass, an error, no matter how slight, can possibly cause one engine to go several times the speed of light faster than the other. This can be very messy. **The warp balancing controls** permit fine-tuning the engines to keep them rock-steady.



The problem of balancing three or more engines is too complex to resolve with present 23rd Century technology. Adjusting one engine usually causes at least one of the other two to go out of synchronisation. Another breakthrough in design is needed before triple engine ships become practical.

The Engineering deck also contains the impulse engines and the auxiliary reactor for ship power. Many Star Fleet vessels also have batteries as a third power source. In warp flight power may be tapped from the warp engines, but it is easier and safer to use other sources.

More modern ships, such as the uprated *Enterprise* (and the new *Excelsior*) have a more sophisticated energy ducting system that leads from the warp engines to the impulse engines and ship's phasers. This ducting system uses much more dilithium, but provides enormous power to weapons and sublight propulsion units. It also makes all of these systems dependent on how the warp engines are functioning; if they go out, so do the other systems. Impulse engines will still function, but at a much reduced effiency level. In such a drastic situation it makes little difference that the other systems quit: without warp drive a ship cannot run very far very fast anyway. Starfleet believes the extra power made available under normal operating circumstances make this vulnerability an acceptable tradeoff.

Warp Engine Problems

No known warp drive can exceed Warp 15. At that speed the ship's mass, 190,000 (mostly synthetic) tons for the *Enterprise*, is reduced to zero. Warp theory states that a ship above Warp 15 either travels infinitely fast, or is destroyed: it leaves space completely, perhaps to be lost in subspace. Yet alien vessels have been reported with higher speeds, and the Medusans are supposedly working on a means of navigating beyond Warp 15 (purely as a theoretical thing, of course).

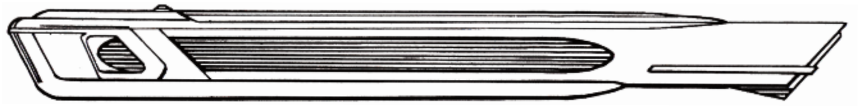
Warp drives are subject to a lot of phenomena invisible to human senses, such as gravity waves and energy fluxes, strong magnetic fields, and even the warp created by other engines. Anywhere mass is changing or energy flowing, a drive will react poorly to it. These events are, fortunately, rare and easily detected by sensors. A more common and maddening problem occurs with tidal forces. If a ship, especially if it has two engines, is too close to a too-massive object, it may not be able to initiate warp. The problem has been noted between two close planets, moons, or other large bodies. If a ship is between two or more gravity-producing objects the difference in gravitational pull can be sufficient to unbalance even the most carefully tuned engine.

Warp engines, even in cold shutdown, often store enough antimatter (a tenth of a gram or so) to initiate warp. Once at warp speed the collector keeps replenishing the supply. A warp engine is built with safeguard upon safeguard to make sure that antimatter never gets away and causes a disaster. Even if an engine is destroyed, the antimatter capsule will slowly bleed off its contents into space, producing a flare but not a blast. Many spaceports that allow warp-driven vessels to land have laws regarding the tampering with antimatter on a planetary surface. Unless licenced and bonded to do warp engineering, such individuals may be subject to stiff fines or imprisonment. No one wants to be the neighbor of a cosmic catastrophy.

Most warp problems happen in the engines themselves, from damage suffered or parts simply wearing out. For the gamemaster who wishes to make the engineers life a little more hectic, roll 1D10 and consult the following table for a random breakdown:

Run-of-the-mill Warp Engine Malfunction Table

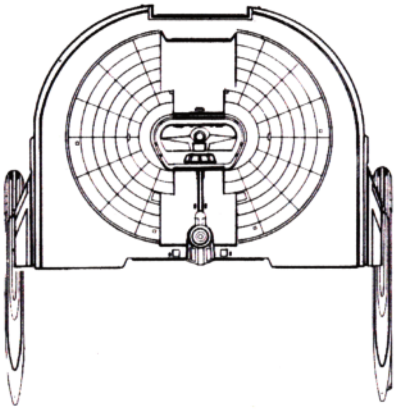
1. **Collector Failure**: The engine is not getting enough matter and antimatter, or it may be getting too much and fouling the cooling system. Sometimes the field just sticks at a particular setting and will not expand or contract. Once in a while they pull larger objects toward the engine: asteroids, debris, people in spacesuits, or even shuttlecraft.
2. **Matter-antimatter seperator failure**:The drive becomes erratic and suffers surges or sudden lulls. In 90% of these incidents, automatic overrides shut the engine down completely, causing



Concept nacelles such as this could power Starfleet's future!

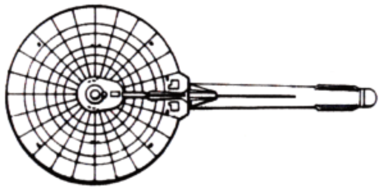
dropout (see below). The drive may also dump all the plasma fuel it contains in a brilliant and dangerous flare. Less frequently it suffers a 'clog,' causing an explosive blowout in 1% of all seperator failures. If this happens, the engine is inoperable until repaired at a base or shipyard.

3. **Intermix chamber failure:** This is the worst possible malfunction because the chamber is the heart of the warp engine. Ninety percent of the time the safety overrides will shut the engine down, once again causing dropout. If it does not, things get nasty. The chamber could rupture, spilling hot, radioactive matter into space or the interior of the ship. It could also explode. Fortunately, only one in a thousand chamber failures result in a ship-destroying blast.



4. **Energy ducting system failure:** The famous dilithium crystal burnout. The ship slows, though energy output remains high and may even suddenly increase. Usually ducting failure is just a misalignment or minor component failure, but if large degrees of speed or power have been recently demanded of the engine, it could be the dilithium. Roll 1D10; a result of 2 or less means at least one dilithium crystal has burned out. If so, roll 1D10 again; a result of 10 means two crystals have blown. For each crystal lost, the engine's power drops by 10% until a base or shipyard can replace them. Ships rarely carry spares, due to the expense.
5. **Warp generator failure:** The ship's speed may reduce suddenly. Oscillation may begin, or the ship may drift sideways. Once in a great while a generator may suddenly switch gravitic polarities, resulting in a warp hop or dropout (see below). A ship can still maintain warp speed with a generator or two out, but engine efficiency is severely reduced. In a dual-drive vessel, generator failure will necessitate the undamaged engine to be throttled back in order to match the weakened power output of the damaged drive. Engine power is reduced 2D10% per failure.
6. **Cooling system/matter dump failure:** This is the most spectacular malfunction of a warp engine. Internal temperatures may rise sharply, causing the entire engine to shut down. There may be a massive flare of hot gas from the drive exhaust, or worse, from one of the intercoolers on the external side hull. If the system clogs entirely, the engine will have to be shut down and flushed, either in space or in dock. A cooling system flareout has been described as looking "like a star trying to crawl into the nacelle." People not prepared for the sight can be scared out of their wits; the flare is very bright and often miles in length, though not as dangerous as a seperator or intermix chamber flare.
7. **Secondary engine power source failure:** A minor but irritating problem. A warp engine cannot be started until the secondary source is fixed. If the ship is in warp flight nothing happens, but as soon as the ship drops out of warp it will not reheat until repaired. (Note: Starfleet vessels can use impulse engine power or auxiliary reactors in such a situation, but only by shutting down nearly all other power use.)

8. **Warp engine monitoring system failure:** Under this condition the Engineering readouts indicate everything is normal, but the automatic systems are reacting to a problem. The engineer will have to manually take over until the fault is traced. Reroll on this table for the false failure; ignore a roll of 8 or 9.
9. **Engineering readout failure:** The automatic controls are working normally but the Engineering indicators say something is wrong. Same effects as above.
10. **No bloody reason failure:** The ship rocks, the power drops, the control board goes crazy, but no cause can be found. Eventually it goes away by itself. Nobody understands **everything** about warp drive. Reroll on this table for a specific component to blame.



Repairing Failures

Roll 2D10 for the number of hours it will take for repairs. If a 20 is rolled, roll 4D10 instead. The engineer can roll on Warp Drive Technology skill to attempt to reduce the time. A successful roll shortens repair time by 1D10 hours, to a minimum of 1 hour. A roll of 05 or less, regardless of skill level, repairs the engine in less than one hour. ("Just a loose wire, Cap'n!")

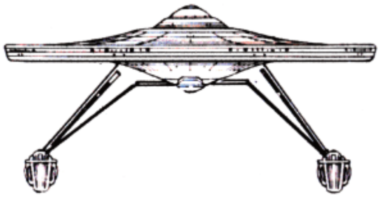
These are the most common warp engine problems. Sometimes the trouble is much more spectacular and frightening. For gamemasters who wish to plague crews with major warp engine problems, roll 1D10 and consult the following table:

Major Warp Engine Malfunction Table

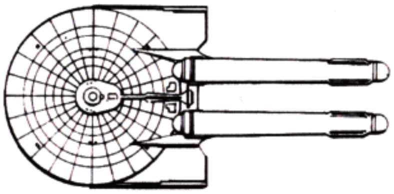
1. **Warp non-initiation:** Near unstable planetary or stellar bodies, too close to too massive an object, in the grip of an artificial gravity or antigravity field, or as a result of tidal stress, a ship's engines may just refuse to come on. The usual solution is to move farther away from the disturbance. If the impulse engines are working, and if the ship can move against the gravity pull, and if there is time to get away at sublight speed, this situation is nothing more than an annoyance.
2. **System superclog:** Warp engines will accept nearly any kind of gaseous matter in space for fuel. In regions of extremely

thick gas and dust, such as nebulae or planetary atmospheres, so great a volume of material can be received that the engine simply clogs everywhere at once, in the collector, seperator, and cooling systems particularly. Unless an engineer is very sharp or warned ahead of time to cut back the collector fields, the engines will superclog and shut down. 4D10 hours will be required to flush the engines before they will work again.

3. **Comtamination**: A ship that remains too long in too low an orbit or on a planetary surface, or fails to completely flush a clogged engine, may suffer degraded performance from contamination. Roll percentiles for the amount of power lost from a contaminated engine. Repair as any other malfunction.
4. **Warp lock**: The ship begins to accelerate, sometimes by itself, and will not stop. Cold shutdown of the engines will stop warp lock in 1D10 minutes, but the ship may suffer a malfunction due to stress before the lock is corrected. Roll 1D10 again, if the second roll is smaller than the first, then in that many minutes something else blows, stopping the warp lock. Repair the breakage as for any other malfunction.
5. **Wormhole**: The ship cannot turn, cannot decellerate, and anti-surge fields squeeze the crew, reducing their DEX and movement rates by half. The ship seems to be accelerating down a ribbed shaft (hence the name), and anything moving within the ship shows the same effect, distorting vision. Only total cold shutdown will stop the wormhole, taking 1D10 minutes. Repair afterwards as for any other malfunction.
6. **Dropout**: A sudden failure in the engine causes the ship to *immediately* drop out of warp flight, to a speed of about 99% the speed of light. Depending on how fast the ship was going, the decelleration could be merely uncomfortable, to damaging, to crushing. Above Warp 6 a ship that drops out will be lucky to make it in one piece. Roll 1D10; if the number rolled is equal to or less than the warp number, the ship suffers engine stress equal to the roll of the die. Repeat for superstructure stress. It will take 1 hour for each point of damage to be repaired, unless the damage exceeds the number of points the ship has to lose. If the engine stress points are exceeded, the engines are unusable until repaired at a base or shipyard. Lastly, if the superstructure stress points are exceeded, the ship is a crumpled ruin when it goes sublight.
7. **Warp hop**: Also known as warp skip and warp jump. At Warp 15, or very high emergency speeds, a ship's mass may momentarily flicker below zero. The ship makes a sudden translation to somewhere else in space, usually on its line of flight but a great and unknown distance away. The ship lurches, the stars go out, and strange, different stars reappear. Some ships have journeyed far beyond the Federation by accidentally warp-hopping, and then returned. Sometimes it has taken them years.
8. **Time disparity**: The ship suddenly gains or loses several minutes, hours, or even days, and the crew may not even notice it. Not actually time travel, the ship simply becomes 'dislocated' in time as a result of high speed, radiation, gravitational effects or space/time discontinuity (see below). No one has yet run into themselves going into the past, but no one knows why not. Some ship disappearances may be as a result of large time displacements.



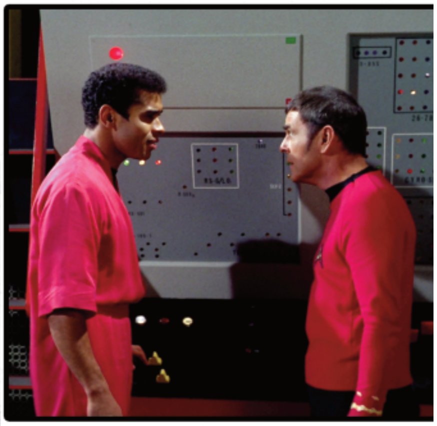
9. **Space/time discontinuity**: At times and in places, completely at random, the fabric of space begins to unravel. Distortion of natural laws take place, throwing objects into subspace, changing chemical reactions in the brain, accelerating the decay of the ship as if from extreme age, almost anything. These phenomena are not well understood, but they usually cause warp engines to act quite strangely. This may produce instantaneous movement from or to the discontinuity, time disparities, or even dimensional projection (see below). Occasionally ships have been found stranded in such discontinuities, and have been known to reappear at intervals in widely-seperated places, similar to the *USS Hood*.
10. **Dimensional projection**: A sudden power surge or gravity event can cause a warp-driven ship to leave this universe and arrive in some other one. Dimensional projection is the most fantastic and rare of warp engine accidents. By amazing luck and intelligence, some ships or individuals have been known to return from such different universes. The effect does not seem to be controllable, and virtually nothing is known of it.



Warning: These severe events can radically change the flow of a campaign and could put the crew and your game under severe stress. Use them sparingly. Besides, too many breakdowns get very boring. Save them for a surprise.

Successful and interesting games rest on the detail and knowledge a gamemaster can draw upon to make a game intriguing, challenging and enjoyable. Hopefully, this primer on warp drive will help bring *STAR TREK* gamers a little more challenge and fun. Enjoy it, that's what it's for!

■



Warp Factor	Relative L. S.	Distance 1 light year	10 ly	100 ly
01	1x	365 days	10 years	100 years
02	8x	46 days	460 days	12.6 years
03	27x	13.5 days	130 days	3.5 years
04	64x	5.7 days	57 days	1.5 years
05	125x	2.9 days	29 days	9.6 mo
06	216x	1.7days/38hrs	17 days	5.6 mo
07	343x	24 hours	10 days	3.3 mo
08	512x	17 hours	7 days	9 weeks
09	729x	12 hours	5 days	7 weeks
10	1000x	8.75 hours	3.6 days	36 days
15	- subspace -	2.6 hours	26 hours	11 days

WARP THEORY
Base Travel Times

1year=365d=12mo=52weeks=8,760 hours
1mo= 4 weeks =30 days

Some typical In-system Distances

Sol to	A.U.	Light Time from	
Mercury	0.39	199s	3.2m
Venus	0.72	360s	6m
Earth	1	499s	8.3m
Mars	1.5	760s	12.6m
Jupiter	5.2	2595s	43.2m
Saturn	9.5	4759s	1h19m20s
Uranus	20	9575s	2h39m40s
Neptune	30	14998s	4h06m00s
Pluto	40	19680s	5h30m00s
Sedna	520	43200s	12h20m00s
Oort Cloud	50k	~605ks	7 light days

TRAVEL TIME X MULTIPLIER = TRAVEL TIME
(Known Warp speed) (from table below) (New Warp Speed)
To convert decimal remainders (days) to hours, multiply by 24
To convert decimal remainders (hours) to minutes, multiply by 60

	Warp 1 1C	Warp 2 8C	Warp 3 27C	Warp 4 64C	Warp 5 125C	Warp 6 216C	Warp 7 343C	Warp 8 512C	Warp 9 729C	Warp 10 1000C	Subspace Radio Warp 15 3375C
Warp 1 1C	1	.125	.037	.0156	.008	.0046	.0029	.0020	.0014	.001	.0003
Warp 2 8C	8	1	.2963	.125	.064	.037	.0233	.0156	.011	.008	.0024
Warp 3 27C	27	3.375	1	.4219	.216	.125	.0787	.0527	.037	.027	.008
Warp 4 64C	64	8	2.3704	1	.512	.2963	.1866	.125	.0878	.064	.019
Warp 5 125C	125	15.625	4.6296	1.9531	1	.5787	.3644	.2441	.1715	.125	.037
Warp 6 216C	216	27	8	3.375	1.728	1	.6297	.4219	.2963	.216	.064
Warp 7 343C	343	42.875	12.704	5.3594	2.744	1.588	1	.6699	.4705	.343	.1016
Warp 8 512C	512	64	18.963	8	4.096	2.3704	1.4238	1	.7023	.512	.1517
Warp 9 729C	729	91.125	27	11.391	5.832	3.375	2.1254	1.4238	1	.729	.216
Warp 10 1000C	1000	125	37.037	15.625	8	4.6296	2.9155	1.9531	1.3717	1	.2963
Time to Travel 1 Light Year	1 year	45days 15 hrs	13 days 12.12 hrs	5 days 16.7 hrs	2 days 22.1 hrs	1 day 16.3 hrs	1 day 1.4 hrs	17 hours 31 mins	12 hours 16 mins	8 hours 46 mins	2 hours 38 mins
Time to Travel 1 Parsec	3.26 yrs	148 days 18 hrs	44 da.ys .6 hrs	18 days 13.5 hrs	9 days 12.5 hrs	5 days 11.4 hrs	3 days 10.8 hrs	2 days 9.11 hrs	1 day 16 hrs	1 day 4.6 hrs	8 hrs 34 min

Warp Factoring

The standard warp formula is

warp factor cubed x light speed = relative travel speed

or

$$(wf^3)\ (c) = (r)$$

$$(r)$$

Where (wf^3) = warp factor cubed (c) = speed of light

(r) = relative warp speed vs. light speed

ST Maps posits two obvious points that should affect speed and helps account somewhat for the distances traveled in the times suggested by the series.

One. Bussards collect molecular hydrogen from interstellar space as fuel to mix with the anti-matter stored on board. Therefore in low-density regions less fuel should equal less speed, thereby starving the engines.

Conversely, the density of a nebula might well choke the collectors and foul the engines. Either condition damages components and negatively affects speed.

Two. Gravity affects warp fields as seen when using gravimetric slingshots. Regions of low gravity equate to less spatial 'material' to warp, thus less speed. Higher gravity fields, such as planets, stars and black holes can cause greater speeds than otherwise normal or expected, or are perhaps so powerful as to overwhelm and collapse any warp field within its gravimetric reach.

Thus does gravity intensify a warp field while molecular density fuels the warp field.

It can now be seen that local molecular and gravimetric densities are each critical modifiers to standard travel times across the Federation. ST Maps suggests values for their calculations. *For game purposes, a value range of 0 - 2 shall be used.*

Modified Warp Formula

$$(w)\ (g + d)\ (c) = (a)$$
$$(w)\ (v)\ (c) = (a)$$
$$(a)$$

Where:
(w) = warp factor
(g) = gravity
(d) = density
(c) = speed of light
(v) = combined value
(Find a) = actual warp
(w = 1 - 10, 15)
(g = 0 - 1)
(d = 0 - 1)
(v = 0 - 2)

g = 0 can be interpreted as no gravitational effect.
g = 1 maximum gravity a ship can successfully initiate warp fields within.

Gravity in this term does not equate to gravitic effects such as acceleration of "1g, 5g, etc". A galactic black hole and common planet may well share the same value in this formula.

d = 0 is least ideal and can be interpreted as empty or high density space.
d = 1 is the ideal balance of light and dense space, a medium rarely seen.

v = 2+ equates to ever greater destruction of the ship.
v = 3 = obliteration as fact.

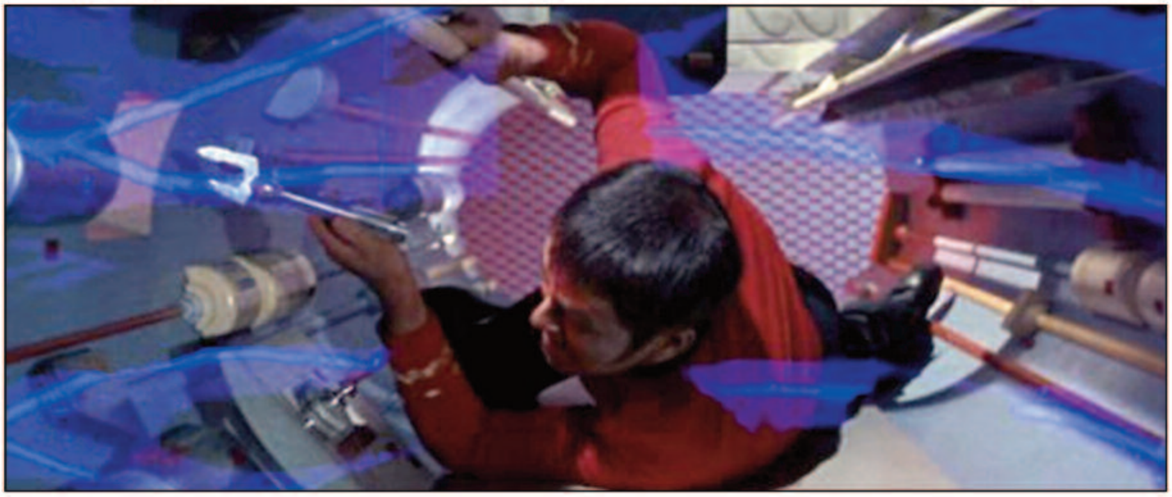
(a) = <1 means slower than normal down to effective zero motion.
(a) = >1 means faster, up to twice expected speed/time/distance traveled.

Travel in <0.5d means increased stress on the engines by either starving or choking them, causing ever longer travel times with deteriorations and damages instilled.

Travel in >1.5g equates to increased stresses on the superstructure with destructive harmonic resonances creating excessive mass for the velocities traveled. Damage and risks sustained are effectively similar to prolonged travel at emergency warp speeds.

In theory, warp performance can degrade to space-normal speeds, even though the ship be in a stable warp field. Eventually such a field would collapse with unknown effects on the ship inside the envelope.

A ship's engines/hull cannot initiate/operate/withstand (a = > 2) in a warp field.



Typical values	(v)		(g)		(d)
Major space lanes	1.8	=	0.9	+	0.9
Minor space lanes	1.5	=	0.7	+	0.8
Average medium	1.1	=	0.5	+	0.6
Nebula, common	0.2	=	0.2	+	0
Intergalactic space	0.1	=	0.01	+	0.09

Enter the Navigator

Roll 1d10/2 rd to determine number of legs to destination.

Navigator uses skill roll to modify (v) in favor per leg of travel.

SUCCESS = + 0.1v per 10pt skill roll margin, up to (v = 2).
CRITICAL SUCCESS = +0.2v per 10pt margin, up to (v = 2).

FAIL = -0.1v per 10pts of margin failed, down to (v = 0).
CRITICAL FAIL = -0.2v per 10pt margin, down to (v = 0).

A magnanimous GM might allow a Navigator's FAIL to be saved by a LUC roll with (heavy) mods applied against, in-situ and under distinct stress. Perhaps adding the FAIL margin amongst the negative modifiers will be needed.

ANY SUCCESS (even a natural 01) = Base travel time (v) restored.
SUCCESS = Base travel time (v) restored.
FAIL = Step away, it's already too late.
CRITICAL FAILURE = What hath you wrought?

Barring that last CRITICAL FAIL, one -and only one- of Helm, Captain or 1st Officer can step in with their own Nav skill check w/ negative mods applied per GM in situ.

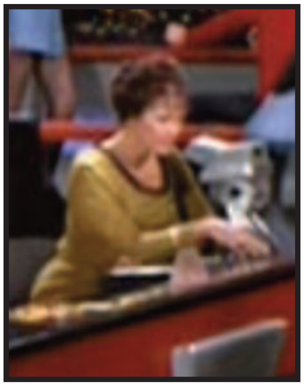
Any SUCCESS = Base travel time (v) restored.
FAIL = It's not worse, but nothing can be done and no amount of looking by any other crewmate of any skill will make it better.
Smoke 'em if you got 'em.

Another attempt to rectify course may only be made if some interstellar or other phenomenon affects the ship, a given number of light years have passed at GM discretion.

How the Navigator is viewed after all of this will be seen soon enough after.

As to Helm

Helm can also modify (v) for the better or worse.



By piloting into and out of the course plot, riding the throttle while trimming the gravity fields, time can be shaven off - or easily added to with bad piloting!

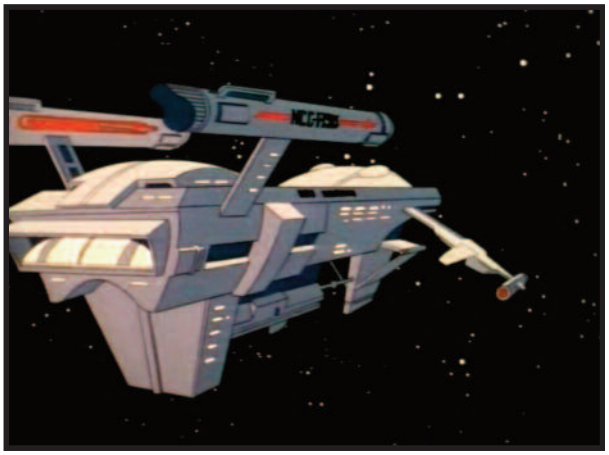
For every
20pts of skill margin success, add 0.1v.
10pts of FAIL, subtract 0.1v.

Nav and Helm can make rolls per-leg of transit or all at once, averaged.

"Best possible speed"

When a Captain calls this order, the Navigator will continuously refine the course just as the Helm refines the speed and trajectory.

Roll 1d10/2 rd per leg for additional maneuvering options. Sum effect is up to the GM, shaving/adding minutes, days, weeks to travel time.



Encounters in Space

(Excerpts from the definitive Star Fleet text on procedures for ship encounters, friendly and unfriendly.)
Text by Garth of Izar, Captain, Star Fleet.

Annotated, with additional material by James T. Kirk, Captain, Star Fleet.
Annotation and update material will be presented in parentheses.

Additional comments and material for use in game/simulations by FASA, under contract with Star Fleet Training division. Game/simulations material will be presented in bold.

ON FIRST SENSOR CONTACT:

The most dangerous period of an encounter between two star vessels is the period of time between first sensor contact and identification of the unknown ship. It is during this period that a commander is most likely to make a mistake in judgement – and mistakes here can cost you your ship, or cause you to open fire on a friendly vessel.

This period of time is to be used for gathering as much information as you can. Make it work for you by opening your eyes to what even the smallest clues can tell you about an unknown vessel's intent. Long before you can gain a positive identification, you can learn important bits of information that may save your ship and your crew.

Look first at the unknown's course and speed. An intercept course is a red warning! In the vastness of space, such things cannot be accidental – the odds against it are enormous. If your courses will intersect, or even come very close, the unknown is seeking you out. On the other hand, if the unknown's course is simply carrying it through your sensor area, you cannot even assume the unknown knows you are present. *(Neither, of course, can you assume it does not... –Kirk)*

An object moving at sublight speed may not even be a ship, but no natural object can travel faster than light. If it exceeds Warp 1, it is of intelligent manufacture.

(Exception: The so-called "Lights of Zetar" are the only known life form capable of greater-than-light speed without technological aid. None of these unique alien life forms are believed to remain in existence, but it does raise the extremely remote, but still actual, possibility of purely natural faster-than-light travel. Of course tachyons and certain other subatomic particles have also been discovered to move faster than light as well, a fact known to Captain Garth. It must be assumed he was referring to the fact that no natural phenomenon travels faster than light at will. This statement was true at the time he wrote it, and no other form of life but the "Lights of Zetar" have appeared to dispute it. –Kirk)

A parallel course, especially one that matches your speed, is also revealing. Such a vessel does not wish to approach immediately, only observe and perhaps follow. It is possible that the commander of such a vessel may be underestimating your sensor distance and does not know that you are aware of his presence. It also may be that the commander of the unknown vessel wants you to know he is there, for reasons of his own.

Watch the approach of a vessel as it comes closer, noting its closing speed. This will determine the amount of time you have to gather data before it comes close enough to identify or to fire on you! Use this time to find out all you can, even if all you have are seconds. At the end of this time, you will have to make decisions and make them fast, based only on what you can learn during this period. Do not act from ignorance.

In terms of the combat game, most of this happens before the actual starship combat procedure takes place. The gamemaster will most likely only tell you that you detected an object. You must ask questions and make a successful Starship Sensors saving roll to gain more information. Use Garth's guidelines to know what to ask, and what the information received can tell you as a commander.

ON IDENTIFICATION:

Vessels that come close enough to be identified positively as star vessels fall into four categories. There are Star Fleet regulations to deal with each, but they are of necessity vague, leaving many important decisions to the commander in space. But there is an overlying philosophy that guides procedures for all types of encounters – the desire to preserve peace.

Where conflict can be avoided, without endangering the security of the Federation, the Star Fleet commander is duty-bound to do so. Above all law, above all regulation is this simple principle. We must share this galaxy with all its living, thinking peoples. Even a vessel belonging to an unfriendly power, when encountered in open space, is to be accorded its rights and privileges without undue challenge. It is the starship commander's job to judge when a ship is exercising free privilege, and when it is committing an act of aggression. The line can be a very fine one indeed.

Star Fleet regulations prohibit firing on any vessel unless such vessel "by its presence or overt actions presents a clear and present danger to the security of the Federation, the safety and rightful free passage of its citizens, or the dutiful proceedings of a vessel under its registry". Regulations further state that a vessel which "behaves in a manner that overtly and directly threatens the security of a Star Fleet vessel" may be fired upon only when "in the carefully considered judgement of its commander, no other action can be reasonably taken to avoid armed conflict, without by so doing presenting a greater threat to the Federaton, its citizens, or to the ship in question itself".

While those words seem straighforward enough, they leave the hard part of the decision right in the lap of the commander of a vessel in space. When you are that commander, you and you alone will make that decision: perhaps face a Star Fleet Board of Inquiry to defend that decision. That is, you may face a Board if you are left alive to do so. With most mistakes, you won't be and neither will your crew.

Let us examine the four types of ship-to-ship encounter, with some practical suggestions on how each can be handled within Star Fleet regulations, with an eye toward protecting friendly relations with other cultures without jeopardizing your ship or the Federation's security.

ON ENCOUNTERING FRIENDLY VESSELS:

When a familiar identification beacon is received, you may breathe a silent sigh of relief, but it is not yet time to completely relax your guard. Confirm communicated ID with visual sighting. Even then, there is a certain set of protocols to be observed, not only for security reasons but as a measure of respect to the master of a vessel in space.

When encountering friendly vessels, establish visual communications as soon as possible. **Such communication should be possible between two vessels about the same time they are close enough to make positive identification of each other. This occurs when the vessels enter the board, in the combat game.** Refusal of visual contact without sufficient explanation should alert you to the possibility of trouble. Insist on such contact where you are in a position to do so. Also, do not hasten to approach a vessel that will not permit such contact, and do not permit such a vessel to approach you.

Star Fleet regulations allow a commander to hold a vessel at maximum positive sensor range **board's edge, in the combat game** if it refuses, or cannot give, visual communication. If a vessel, even a friendly one, refuses this privilege, you are required to give it a warning, quoting the regulation. If the vessel continues approach, you are required by Star Fleet regulation to raise defensive shields go on defensive alert status. At this point, the vessel is no longer, under regulations, considered "friendly". It must be treated as potentially hostile.

ON ENCOUNTERING NEUTRAL VESSELS:

Under Star Fleet regulations, vessels belonging to neutral powers (such as the Orion colonial planets) must be treated as "friendly" vessels until their overt actions present an "unfriendly posture". Dealing with neutrals is tricky business, chiefly because what constitutes an "unfriendly posture" is left entirely to a star vessel commander to interpret in the field. If questioned later, your actions regarding neutrals may be examined by a Board of Inquiry.

(An examination of Captain Garth's own exemplary record reveals that he often acted first to protect his ship and the Federation's security, and "worried about the Board later". His only justification for his actions – and the only justification needed – was that he was again and again proved right. His record shows that he tended to "err on the side of peace" whenever possible, granting a suspicious vessel all possible leeway, until such time as the safety of his crew was directly threatened. Again and again, he made correct decisions based on very little evidence. Such a "feeling" for command decisions based on very little evidence cannot be taught by a text. It can only be learned by experience – Kirk)

ON ENCOUNTERING UNFRIENDLY VESSELS:

A vessel is considered "unfriendly" when it belongs to a power defined as unfriendly, such as the Klingon Empire *(the Romulan Confederation and the Gorn Alliance are other "unfriendly" powers . . . – Kirk)*, or when by its actions (firing weapons, refusing to hold distance and/or communicate meaningfully etc.) it has displayed an "unfriendly posture".

The raising of defensive shields, however, can be interpreted as an act preparatory to aggressive action. Thus, shields should be withheld if there is no clear and present danger to the ship. A ship proceeding on an intercept course, refusing communication, can be considered presenting an unfriendly posture, as can one passing closely within range of arms, despite requests to the contrary. Still, shields should be raised only if the commander feels an attack is imminent.

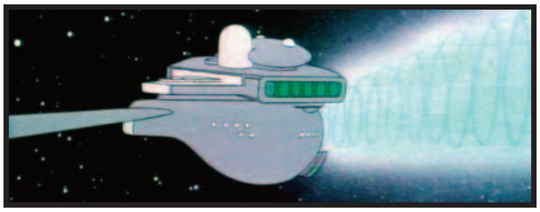
Once shields are up, expect to take fire! Prepare weapons and lock them for maximum effect. But do not fire unless you can establish that you actually are under attack. Regulations do not define this condition, but the proceedings of previous Star Fleet Boards of Inquiry can give us some guidelines.

If a vessel raises defensive shields when approaching rapidly, or maneuvers deliberately to bring firepower to bear, it must be considered hostile. Rarely, you may even be forced to fire first. If so, be very, very sure you can defend your actions later, but do not let indecision cripple you! Protect your ship and carry out your duty as best you can!

When you do fire, Star Fleet policy is to rapidly destroy the enemy's capability to perform damage. In other words, you must attempt to remove the enemy's ability to fight. This does not always require destruction of the enemy vessel or even massive loss of life. In fact, destruction and loss of life is to be avoided, unless the vessel's "mere, unarmed presence presents a clear and present danger to security or safety", in which case it may be destroyed. Boards of Inquiry rarely find total destruction of a vessel to be justifiable.

Once an enemy ship shows a willingness to break off hostilities, allow it to do so, but retain a full defensive posture. Demand immediate removal of the threat to security, either by removal of the ship from the area or surrender of the enemy ship. A ship that performs an act of war (such as attacking within clearly defined Federation territory, or attacking an identified, unarmed vessel on legitimate business) cannot be allowed to leave and must be forced to surrender or be disabled. **(A ship is disabled when it cannot attain warp speed, and has no offensive weaponry active).**

(Certain unfriendly vessels, particularly those of the Romulan Confederation, have never been known to surrender. When encountered in Federation space, in violation of the pertinent Treaty, they must be destroyed if they attack overtly. Commanders are cautioned never to closely approach a Romulan vessel except under direct orders from Star Fleet, as Romulan commanders have orders to destroy their vessels to escape capture and boarding. – Kirk)



ON ENCOUNTERING UNKNOWN VESSELS:

The Star Fleet ship commander treads on thin ice indeed when encountering a ship not belonging to any known starfaring power. In encounters with an unknown race, a commander must be particularly careful not to initiate action that would be interpreted as hostile. Give someone new room to be your friend before you make an enemy of him. Star Fleet vessels are under strict orders not to open fire on, or take an unfriendly posture toward, a vessel of unknown origin unless it commits an openly hostile act, or openly declares hostilities.

Frankly, we could lose a lot of good men and ships this way, but it is this stance that separates the Federation from conquerors such as the Klingon Empire. Historically, this policy has paid off more often than not. The Andorian Stellar League was met in its first human encounter by an armed vessel. How much different would be the Federation's history if that meeting had resulted in conflict? Would there indeed have been a Federation at all?

You will never be sure, when you meet that first unknown race, what the results will be. Act with prudence. Think of the safety of your ship, yes! But think also of the future of the Federation: War is not a dishonorable profession. I have been a warrior all my life. But peace is more honorable still, and it is worth great risk to establish and maintain.

(Historical note: At one point during the first star command voyage of Garth of Izar, his ship encountered a badly damaged ship belonging to no known race. Before communication could be established, the small ship turned and opened fire. Garth's vessel was damaged, but – though he raised defensive screens – he did not immediately return fire. Keeping a heavily-screened side to the vessel, he held course past them and continued beyond the vessel, stopping just within sensor range.

(The unknown vessel broke off the attack. Soon after, the two vessels established communication and shipboard computers managed to translate parts of the alien language. It was learned that the small ship had encountered a medium-size war vessel of the Klingon Empire, and had been badly damaged when the Klingons attacked them before the small ship could use its superior speed and manuverability to escape. The commander of the vessel, upon detecting Garth's ship, assumed the Klingons had followed to finish him off and opened fire.

(More than 120 members of this heretofore unencountered race were slain by the Klingon attack. Three members of Garth's crew had been killed in the retaliation. Despite the inauspicious beginning, the newly encountered race went on to establish mutually beneficial trade and defense agreements with the Federation. The three slain crewmen were posthumously awarded the Star Fleet Medal of Honor and the Federation Peace Prize, and a Board of Inquiry commended Capt. Garth for showing "unusual and meritorious restraint in the pursuit of peace, despite overwhelming evidence of hostile intent". Later, Garth was heard informally to remark, "If I'd been wrong, they'd have called me a fool and a criminal – but I'd have never had to hear it." – Kirk)

GENERAL INFORMATION

The tactical combat game begins when a ship first makes close sensor contact with another vessel, coming within identification range. The gamemaster can handle first sensor contact as appropriate for the situation. An enemy ship may hang around the edges of maximum sensor distance, barely detectable. In such a case, it would require a very good saving roll on the starship sensors skill (a +20 roll at least) to tell anything about the type of a ship, power systems, etc.

Eventually, if combat is to occur, the ships will approach close enough to be identified. This is when the ships first move onto the map. The speed of the two ships will be matched at this time and should be declared (as sublight, warp 1, warp 2, etc.)

When playing scenarios from this book, starting positions and ship types will be specified. Use appropriate counters on the tactical display. Each ship has a different set of control panel displays as well. When there are players operating both sides, the full set of charts for each is used. When the gamemaster is operating enemy ships as part of a campaign situation, he has the option of using a simplified control system. The simplified system is useful when running several enemy ships, or resolving a combat situation in a campaign.

These rules will center around battles involving a Constitution class starship (like the Enterprise), but they can be used with any type of ship. A number of Federation ships and enemy ships are provided with this game, and others are forthcoming from FASA.

Next, read the section that pertains to the character you will be playing aboard ship. Gamemasters should read all sections.

A NOTE ON HEXAGON MAPS

The mapboard used with the ship combat system is a grid of six-sided areas called hexagons or hexes. Those familiar with modern adventure games are probably used to hexboards, but for newcomers, a short explanation is in order.

Hexboards are often used in games like this one because they make space movement more realistic, providing six possible movement directions instead of the four offered by squares. The hexes on the enclosed mapboard are numbered for convenience in placing items for scenarios. Both numbered and unnumbered hexmaps in various sizes are available from most adventure gaming stores, if you wish to use a larger map for combat.

Each hexagon has six sides where it borders other hexes. These hex sides can be important in this game, for they are used to divide a ship's protective deflector screens into areas, and to determine a ship's facing for purposes of firing weapons and moving.

Starship Combat

Starship combat in this game is unlike most other tactical space combat games. Success in warfare with complex machinery, from tanks to starships, depends on using the equipment to best advantage. STAR TREK is no different in this philosophy.

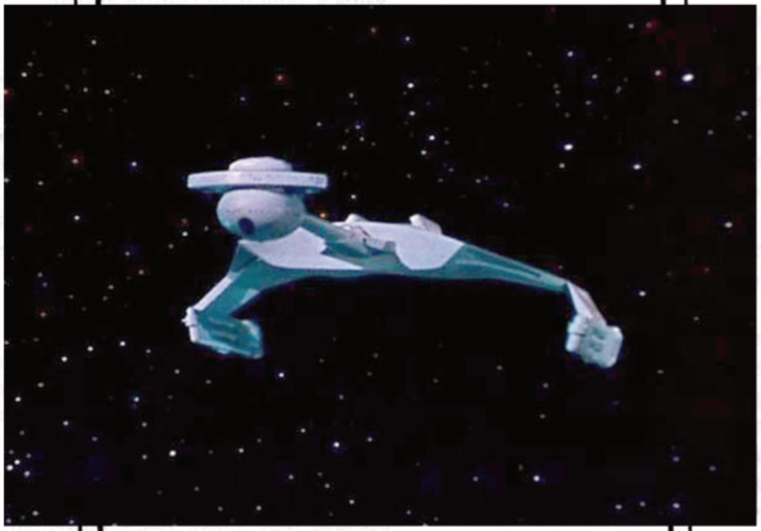
Where STAR TREK differs is in the approach to combat. A simple boardgame could have been used, but STAR TREK as developed here is intended as a role-playing experience. Unlike other tactical space combat systems, STAR TREK offers the opportunity to "role play" during ship combat as well as during ground or ship based adventures.

In the system presented here a number of players will interact, cooperating in an attempt to defeat an enemy ship (or a number of ships). The atmosphere of a game session then becomes much like that on the bridge of a starship, with each player having a responsibility to control one part of the ship's functions.

To keep track of the ship functions in play, each player uses a control sheet or panel. These players will communicate vital information back and forth during combat, using their panels to record the turn-by-turn changes in power levels, ship's weaponry status, crew casualties and more.

These rules are divided into sections for each active player; captain, engineer, helmsman, science officer, and communications officer. (Other officers may participate, give advice, etc. However, the other officers play a less crucial part during battle).

Each Player need only read and understand the rules pertaining to that player's position. As play proceeds, players will become familiar with how other positions fit into play. The gamemaster, however, must be knowledgeable in all sections of the rules, partly to guide the players, and partly because he will be using a simplified version of these rules to run the enemy ships.



Another difference between this and other tactical games is in movement. Speeds in the STAR TREK universe are extremely, almost unimaginably, fast! A ship going warp 1 is travelling at the speed of light (186,000 miles per second). As warp factors increase, the speed increases exponentially.

That is, at warp factor 2, a ship is moving at 8 times the speed of light. At warp 3, the speed is 27 times the speed of light and so forth. By the time you reach warp 10, a ship is moving at 1000 times the speed of light!

Despite these enormous speeds, STAR TREK's weaponry (phasers, photon torpedoes, and such) work and are targetable at any speed. (In the episode *Journey to Babel*, for example, an Orion ship attacks the Enterprise while moving at warp 8; 512 times the speed of light!)

It is then obvious that ship speed does not matter to weapons fire. There are still problems involving speed, however.

Consider an example from current warfare. You are standing in the middle of a street when a small jet streaks over. If both you and the pilot each know the other is there, and both have weapons available and ready, you might just get one shot at each other as he screams by. Without sophisticated electronic help, you couldn't hope to hit each other. Even so, he's gone in a second and it will take some time for him to turn around for another pass.

The jet plane vs. pedestrian scenario is comparable to two starships, one moving at warp 1 and one at warp 2. By the time a captain can say "Fire photon torpedoes!" the other ship is one and one-half million miles away! (A bit far for even STAR TREK's weaponry!)

In other words, to have combat, the relative speeds of the combatants must be similar. Whether they are moving at warp 1 or at warp 10 is unimportant, as long as both are moving about the same speed.

Individual ship speed is important in one respect— it is harder on a ship to make a tight turn at high speed than the same turn at low speed. This will come into play in this game.

A character's individual skill ratings will affect that character's performance in certain areas of combat activity. Players will roll % dice in an attempt to make a saving roll on one skill area or another to determine how well the character performs in combat. As with all saving rolls, a score on the % dice equal to or less than the appropriate skill rating indicates success.

If there are not enough players for each of the 6 bridge positions, one player may handle more than one character. Both player characters and non-player characters may be involved in combat rounds.

Editor's Note:
The more starship combat material added, the closer this all comes to being the full **Star Trek III Starship Tactical Combat Simulator Box Set (FASA#2003)**. As a line must be drawn, it gets drawn here. My aim here is to add enough complexity to pick and choose from while generally adhering to the simplified combat system as originally presented (and tweaked) herein. Therefore, I've included enough material to get you in trouble, but maybe not enough to get you out of trouble. lolz.

If it isn't on my **jackphoton.space** website yet, the plan is to cull and compile all the TOS ships from the various recognition manuals along with charts, TOS era rules and such from the box set and **Starship Construction Manual (FASA#2204)** as well.

Have a look at my refined layout of the ST III Combat rules now found in Supplement 14, ST Tactical Combat Simulator. This eliminates most of the redundancy found in the original text.

STARSHIP EXPLOSIONS

There are times during starship combat when a ship will explode. This can be the result of continuous incoming fire or a simple declaration of self-destruction. The explosion is accomplished by a mixing of matter and anti-matter, which is intentional in self-destruction. When a ship faces a barage of incoming enemy fire that causes its superstructure point total to drop below zero, it must make a saving roll on 1D10 greater than or equal to the number of points below zero. For example, if a ship suffered a number of points damage that caused its superstructure total to drop to -5, the ship's engineer would have to roll 5 or greater on 1D10 to prevent destruction. This roll is only made during the phase when the superstructure point total drops below 0. It is assumed that action can be taken to prevent the explosion in one phase.

The mixing of matter and anti-matter results in a very violent explosion. Ships that are close to such an explosion will take damage according to the following rules:

Range	Amount of Damage
1 hex	full amount of all remaining engine points
2 hexes	1/2 of all remaining engine points
3 hexes	1/4 of all remaining engine points
4 hexes	1/8 of all remaining engine points
5 hexes	1/16 of all remaining engine points
6 hexes	1/32 of all remaining engine points
7-10 hexes	1 point of damage

A ship within 10 hexes will always suffer at least one point of damage no matter how big or small the explosion was. The number of remaining engine points is calculated after all fire combat is completed for that phase and includes any and all warp and impulse points.

SHIP'S CAPTAIN

Once sensor contact and identification is made, counters representing each vessel or base are placed on the blank hex map. Starting positions are noted for scenarios in this book and the gamemaster should select counters and starting positions for combat encounters during play.

The STARSHIP COMBAT TACTICS/STRATEGY skill determines the relative starting positions of the opposing ships. The skill levels of the opposing ship commanders is compared, with the highest level commander considered to have the tactical advantage throughout the scenario (unless the character is a casualty, in which case the skill level of the replacement is used.)

The player with the tactical advantage decides at the beginning of the turn which side will move first. At times, it may be advantageous to move first, but sometimes it is better to delay movement.

The ship's captain makes the crucial decisions involving combat. It is up to the other officers to carry out the captain's decisions, and to provide him with the information necessary for him to make those decisions intelligently.

The captain may ask at any time for a status report on the readout panel before any crew member, or for any information on that panel. Using this information as a guide, he decides when to raise shields, when to fire weapons, how to maneuver them, etc. Just imagine yourself as Captain Kirk.

There is no control panel for the captain. His role is to make decisions only. A good captain will make decisions based on the recommendations of his crew and his own experience; delegating authority. A captain should give orders in a general manner, leaving the specific methods to the other officers.

For instance, a captain might tell the crew, "Bring her about, keeping our front shields to the enemy. Concentrate more power in the forward shields and fire photon torpedoes when the enemy is at close range." The captain wouldn't worry about where the power was specifically coming from; that's the engineer's job. He wouldn't worry about exactly how much power was put into forward and aft shields; that's the navigator's job, and so is moving the counter on the map. Neither would he worry about power for the photon torpedoes; that's the helmsman's job. The captain's job is coordinating these efforts to best advantage to neutralize an enemy vessel.

He may use his skill in *Starship Combat Strategy/Tactics* to anticipate the enemy's maneuver. If the Skill Roll is successful, the gamemaster should tell him what the enemy is going to do, and he can use his imagination to decide what maneuver to make to take advantage of this. The gamemaster should be careful that the Captain does not do all the jobs for all the player characters.

It is possible that a captain may be called on to make a saving roll on the STARSHIP COMBAT TACTICS / STRATEGY skill by the gamemaster. Sometimes, this procedure may be used to determine if a tactic is anticipated by the enemy vessel. Of course, it is the captain's score in this skill that determines which side gets combat initiative at the beginning of the combat.

ENGINEER

The engineering officer keeps track of how much power is available and where it goes. During the game, the only power consumption that must be dealt with is that used for battle. Power used to maintain current overall speed, life support, etc., need not concern us.

Power to run the ship comes from the matter/antimatter reaction in warp engines, and to a lesser extent, from the impulse engine generators. In the case of the Enterprise and her sister ships, the warp engine nacelles produce 20 points each of energy, and the impulse generators produce 4 points. (Total: 44 points). This is the amount of power available for use in one normal turn.

Power not used during a turn cannot be saved for use during a later turn. Also, damage to an engine or power loss due to engine stress may reduce the number of points an engine may produce.

The engineering console has power available tracks for engines on each ship, plus a total power available track. (Once you have experience using the chart, you may be able to tell at a single glance total power without adding it up and using the total power track. If so, you may quit using it). A cardboard counter is placed on each track at the maximum power level for that engine. This is placed on each track at the maximum power level as the engine takes damage or stress, then higher again as repairs are effected.

Each combat turn, the engineering officer may attempt a saving roll on % dice against his/her WARP DRIVE TECHNOLOGY skill level. If the roll is successful, the character has "nursed the engines along" and managed to pull one extra total point of power from them for that turn only. If the roll is 05 or less (no matter what the skill level), a two-point bonus is added for the turn. (Mr. Scott! Can you get us more power for the shields?" "I dinna know, Captain, but I'll gi'e it a try!") Once power available for the turn is determined, the engineering officer must channel it to the systems requiring it. For combat purposes, power may be directed for shields, weaponry, and tactical maneuver. The power allotted for these three areas must add up to no more than the total power available.

On many ships (including the Enterprise-type ships), it is possible to channel all power into shields. Doing so, however, leaves the ship unable to maneuver or fire weapons. Likewise, putting all power into weaponry leaves the ship stationary and vulnerable. Allocating power for maximum maneuverability leaves the ship without weapons or shields! Obviously, a compromise must be found, and the power allocation adjusted turn-by-turn as the needs of *the captain and officers shift.*

Using the Enterprise and her sister ships as an example, the shields track of the engineering console shows that all 44 available points (and on up to 46, if the engineer makes a good saving roll on WARP DRIVE TECHNOLOGY) could be diverted to the shields or to maneuver. The weaponry (in this case, photon torpedoes and phasers) section shows only 32 spaces, and this is the maximum power that can be placed in that area.

NOTE: In the case of maneuver, it takes 4 points of power (as allocated by the engineer) to produce one maneuver for the helmsman. Thus, the engineer should think in terms of groups of four when allocating power for maneuver.

The engineering officer should be guided by requests from the captain and other officers needing power when making allocations. Quite often, he/she will not be able to satisfy all requests completely, and so must try to compromise as best as possible. (Now you know why Scotty hits the Saurian Brandy so hard . . .)

Instead of making a saving roll to gain extra power for a turn, the engineering officer may instead roll on the STARSHIP ENGINEERING (GENERAL) skill level to reduce the amount of stress or damage that has been applied to an engine. On a successful roll, the engineer may move the counter on a damaged/overstressed engine back one step, bringing back one point of lost power from that engine. As before, a roll of 05 or less allows repair of two points of damage. Repairs are important, as when an engine drops to the "0" level, that engine is incapable of producing any power at all!

Instead of one of the other two saving rolls, the engineer may be asked to roll on the WARP DRIVE TECHNOLOGY skill to allow the helmsman to make an unusual change in overall speed. Overall speed is not on the engineer's console, but he makes this roll if it is needed and requested by the helmsman.

Most of the time, a navigator's major job is to plot a course between destinations for a starship. During combat, however, very little course plotting can be done. Therefore, the navigator's main responsibility in combat is operating the deflector screen.

There are six main deflector shield areas, each protecting one hex side of the hex containing the target ship. A navigator may power one, a few, or all these shields to *any capacity up to their stated maximum, according to* how many points were allocated for shields by the engineer and what direction the attack is likely to come from.

A skill level roll on DEFLECTOR SHIELD TECHNOLOGY may be made here by the navigator, with success granting him two extra points of shielding over and above the power allocated by the engineer. This does not represent an actual expenditure of more power, but rather the efficient use of the power by the navigator. These extra shield points can be put on any shield desired. They do not both have to be applied to the same shield.

Deflector shields prevent weapon hits from penetrating to damage a ship. If a weapon strikes on an unshielded side, or if a shield is not strong enough to deflec an attack, ship damage will result. It is important for a navigator to keep an unshielded or weakly shielded side away from enemy fire.

Shield energy may be divided among the six shield areas as desired by the navigator, as guided by the captain's orders. The Navigator receives 2 shield points for every 1 energy point received from the Engineer. If a ship suffers a hit, the number of damage points done by the weapon are subtracted from the amount on the shield that is struck. Move the counter on the appropriate track to show this.

If there is any question as to which hex side (and thus, which shield) has been struck, place a straight edge (ie., a ruler) between the center of the hex occupied by the ship firing to the center of the hex containing the target ship. The side of the target hex containing the straight edge determines the hex side and shield struck. If the edge passes through at exactly the joint between two hex sides, the captain of the target ship designates which side is struck. The Gamemaster shall be the final authority on any disputes.

If damage from a weapon hit exceeds shield capacity, the ship will be damaged (see Science Officer rules about damage). The navigator must inform the science officer when shield capacity is exceeded (that is, when shield strength is reduced to zero by a hit).

The navigator also controls the tractor/pressor beams. The effective range on these is 15 hexes.

The helmsman is responsible for controlling ship maneuver and firing the ship's weaponry. As such, he is the officer with the longest section of rules to read and the most to do during a scenario. The helmsman is the officer responsible for actually moving the ship counter on the mapboard.

The helmsman's console first has a track for recording the current overall speed. (Sublight, warp 1, warp 2, etc.) Overall speed has nothing to do with the distance moved on the mapboard, but it has an effect on turning a ship during maneuver. Also, a ship may wish to change speed during a combat encounter to break off battle, or to follow an escaping ship. Note that the normal maximum safe speed for a Constitution class vessel is warp 6. Maximum emergency speed is warp 8. Emergency speed may be maintained only for 10 turns without placing stress on the superstructure and engines. For every turn speed is maintained over the max safe speed, 1 point of stress is applied to each engine and the superstructure.

Warp speed may be increased or decreased one step per combat turn. An enemy ship must match speeds to continue combat. If a helmsman desires a larger change in speed during one turn, he may ask the engineer to try for a saving roll on WARP DRIVE TECHNOLOGY skill. If the engineer's roll is successful, speed may be increased or decreased 2 steps that turn. (This maneuver is useful if a ship must flee, as the opposing ship will have to make a saving roll to follow).

Of course, a ship may travel no faster than it's stated maximum speed without risking damage. Top speeds and ship stress when they are exceeded is noted for each individual class of ship.

The next track is for keeping a record from turn to turn of maneuver points allotted. The engineer will inform the helmsman the number of power points allocated for the turn to maneuver. It takes 4 power points to provide one maneuver point on the helmsman's track. Thus, at the beginning of each turn the helmsman should move the counter on the maneuver points track to a number equal to ¼ the power points allotted the the engineer to maneuver (rounded down). (If the engineer allots 12 power points, there are 3 maneuver points available. The engineer must allocate 16 power points to have 4 points of movement, etc.)

Maneuver is accomplished in phases. At the beginning of the combat turn, the captain with the highest STARSHIP COMBAT TACTICS / STRATEGY skill decides whether to take the first move himself, or give it to the enemy ship. (Settle ties with a quick roll of the dice each turn).

The helmsman of the ship moving first may then move the ship counter one hex on the board. The ship must move into the hex its front is pointing toward. Once moved, the counter may be rotated one hex-side in either direction to change facing, with no stress to the ship.

A ship may be turned two hex-sides, but it may suffer engine and/or superstructure damage from stress, depending on the overall speed of the ship. The turn stress chart may be different for different class ships. It is printed on the helmsman's console.

If stress damage is indicated, the engineer must move the counters on each warp engine's power available tracks to indicate the decrease in maximum power. (This damage can be repaired by the engineer later). Superstructure stress is kept track of by the science officer. Such damage cannot be decreased during combat; such repairs must be made after combat is over.

Turn stress can be decreased somewhat by a skilled helmsman. Once per turn, if stress damage is indicated on the chart, the helmsman may attempt a saving roll on the STARSHIP HELM OPERATIONS skill level. If successful, the damage is reduced one step. That is, the damage taken is as if the ship were moving one warp factor slower. For instance, a ship moving at warp 8 turns two hexsides in one phase. Each warp engine would ordinarily lose 2 points to stress and the superstructure lose 3 points. The helmsman, however, makes a successful saving roll. The damage is reduced to 1 point of engine stress per engine and 2 points of superstructure damage, as if the ship had only been moving at warp 7.

Instead of moving, a ship may simply be rotated one hex-side in place (or two, with stress damage taken) without moving at all. This action also uses up a maneuver point.

No matter what, a normal ship may not be turned more than two hexsides per turn. Movement of one hex and rotation, or rotation alone, costs one movement point. Move the counter on the movement points available and track one space to the left. When the available movement points reach zero, that ship can maneuver no more that turn.

Once the first ship is moved one hex, the opposing ship may move one hex in the same manner. (If there is more than one ship on a side, play alternates back and forth until one side is out of ships, then the remaining ships on the opposite side are moved for the first phase).

At any time, no matter who is maneuvering, a ship may decide to fire at an opposing ship. Maneuver stops at this point and fire is resolved. Several ships may fire at once, in which case the fire combat is resolved in the order it is declared.

Once all ships have moved for the phase, the next phase is begun, with the ships moving in the same order. These maneuver phases continue until a ship is out of maneuver points. That ship may then no longer maneuver (but it still may fire!) When all ships are out of maneuver points, the turn is ended.

A ship must use up all the maneuver points allocated at the beginnings of the turn in some fashion but exactly how they are used is up to the helmsman.

FIRING WEAPONS

Some types of weapons, such as phaser and disruptor banks, must be charged with energy to fire. Each weapon of this type has a maximum charge capacity and may not fire more power in a given shot.

Federation photon torpedoes work differently, requiring only a small expenditure of energy (one point, in this case) to "arm" them. It is harder to hit with a launched torpedo than with a beam weapon, however.

The tracks on the helmsman's console show the type of weaponry on board and its charge levels. A counter is moved on each track to show the current status of each weapons system.

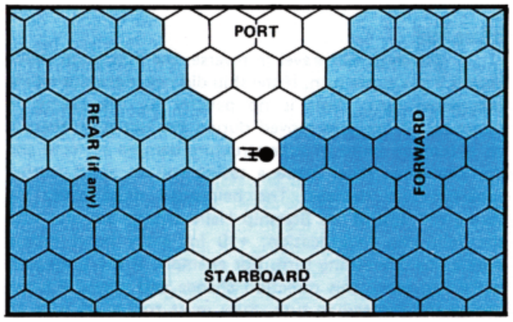
Unlike some other officers, the helmsman never arms or fires the weaponry without a direct order from the captain (or in his absence, the commanding officer present). Firing ship's weaponry is always a command-level decision. It is up to the helmsman to see to it that the power is there and ready when the captain needs the weapons.

The engineering officer will tell the helmsman how much power is available for weapons each turn, and this is allocated by the helmsman to whatever weapons the captain wishes to arm. The weapons are armed at the beginning of the turn. As they are fired, their tracks should be revised to "unarmed" status. Thus, each weapon can be fired only once during a combat turn.

Each weapon on board a ship has a firing arc. This arc specifies in what direction (relative to the ship's facing) the weapon can be fired. The firing arc of a weapon depends on the type of weapon and where it is mounted, and may vary from ship to ship.

There are four possible firing arcs for normal ship weaponry; forward, port, starboard, and aft. A single weapon (or "bank" of more than one weapon installed together) may be specified on the helmsman's console as facing any of these arcs (possibly more than one). Thus, it can fire at an enemy only if the enemy falls within its arc of fire.

Arcs of fire for forward, port, starboard, and aft mounted weapons are shown on the accompanying chart below.



It is possible to fire different weapons at different targets in the same turn, but a set of weapons designated as a "bank" must have only one target designated for the turn. For instance, the Enterprise has a starboard phaser bank consisting of two weapons. Either or both may be fired, but if both are used in one phase, both must fire at the same target. This is because weapons in banks are all operated by the same fire control systems.

Note that because of restrictions in firing arcs, it is very important to place your limited power in weapons which face the enemy. It is the helmsman's job to anticipate enemy movement and have the proper weapons ready when the fire order is given.

A photon torpedo, or other projectile weapon, must be armed to be fired. To determine whether or not a hit is scored, the helmsman must 1) figure the range to the target, and 2) make a successful "to hit" roll. If a hit is scored, the target ship must determine what type of damage (if any) is done by the torpedo.

To figure range to target, count the hexes from the firing ship to the target by the shortest possible path. (Count the target's hex but not the hex the firing ship is in). Then consult the torpedo/projectile firing chart on the helmsman's console. Next to the range listing will be the "to hit" score. This number or less must be rolled on one 10-sided die to score a hit. The helmsman then rolls to determine a hit or miss.

For example, imagine the Enterprise is in combat with a Klingon battlecruiser. The two ships are 5 hexes apart when the order to fire photon torpedoes is given. Consulting the helmsman's console for the Enterprise, we see that a torpedo shot at a range of 5 hexes is a hit on a roll of 8 or less. The helmsman rolls a 4 – a hit!

If a ship has more than one projectile weapon (the Enterprise, for instance, has two photon torpedo tubes), both may be fired simultaneously. However, the roll "to hit" must be made separately for each projectile.

When firing, the "to hit" roll may be modified by a saving throw on the helmsman's SHIP'S WEAPONRY TECHNOLOGY skill. If the saving throw is successful, the "to hit" number is increased by one. That is, if a successful saving throw is made, a helmsman who would have required a "to hit" roll of 8 or less, now hits on a nine or less! The navigator can try for this roll every time a shot is fired.

Some projectile weapons (photon torpedoes included) may be laid as mines. To lay mines, photon torpedoes are "fired" at empty hexes. No "to hit" roll is necessary; they always land in the hex for which they were intended. A counter is placed in the hex to mark the spot. Later, if a ship enters that hex, the mine explodes. These mines may be destroyed at any time by the ship that launched them, and more than one may be placed in a hex. Such mines are not sure hits, since ships may detect and dodge them at the last minute. Therefore, when encountering a mine, the target ship rolls a 10-sided die. On a roll of 5 or less, a hit is scored. Otherwise, no damage is taken.

To employ mines in a situation, use inverted unused counters. Use 3 'dummy' counters to every 1 actual mine. The player places these on the mapboard, writing down the hex numbers for the hexes the real mines are in. When a player enters a hex with a 'dummy' counter, the counter is removed with no damage effect, of course. When a ship enters a hex with a real mine, roll for hit, then remove the counter from play. A mine only explodes once. If a hit is scored, consult the torpedo/projectile table again for damage. Most projectile weapons do the same amount of damage regardless of range. Report such damage to the person operating the enemy ship, so the effects on shields and other systems can be evaluated.

Firing beam-type weapons (like phasers or disruptors) is a similar procedure. Such weapons, however, may have a varying amount of power devoted to their use. The amount of power devoted to a beam weapon will not affect the weapon's range, but will affect the amount of damage the weapon causes. A weapon must have at least one point of power allocated to be fired at all!

Beam-type weapons are usually more accurate at longer ranges than projectiles, but their damaging power is reduced at long range. Figure the range to the target as with a projectile and compare to the appropriate beam weapon firing chart to find the "to hit" chances as before. Technology skill may allow an increase in the "to hit" chances as before.

Once a hit is scored, compare the range of the shot on the beam weapon firing chart to determine the "damage +" done by that weapon at that range. This number is added to the number of points of power allocated to that weapon for the turn to determine the points of damage suffered by the enemy ship.

When firing more than one beam weapon designated as a bank , only one "to hit" roll is made. If successful, the power of all weapons fired in that bank (plus the damage + for each weapon) is taken as damage by the enemy.

Once a weapon (beam or projectile) is fired, the counter for that weapon is returned to the "unarmed" box. At the end of the turn, all weapons become "unarmed", whether fired or not. Thus, one cannot carry over power put into unused weapons from one turn to the next.

If weapons are designated as damaged by incoming fire, the science officer will indicate this. The helmsman then places the counter for that weapon on "damaged". Such a weapon cannot have power put into it, or be fired, until repaired. Such repairs must ordinarily be done after the combat situation is over.

EVASIVE MANEUVERS

A helmsman may take emergency evasive maneuvers to dodge an incoming missile (such as a photon torpedo). Beam weapons such as phasers, disruptor bolts, and plasma weapons cannot be dodged in this manner.

To attempt emergency evasive action, the captain must order such a maneuver immediately upon the enemy's announcement of firing. (A captain may place a standing order for such a maneuver at the beginning of the engagement, in which case it is up to the helmsmen to declare the action).

Evasion must be declared to either port (left) or starboard (right). The counter of the evading ship is immediately turned one hexside in that direction, but is not moved from its current hex. It must start further movement from this position, regardless of the results of evasion.

The helmsman then must attempt a saving roll against the Starship Helm Operations skill. If the roll is successful, the torpedo impacts against a different shield (the one now toward the firing ship), and does only ½ normal damage to shields and systems. If the roll fails, the torpedo or other missile has still hit the shield it originally would have struck, and does full normal damage.

A ship that has performed an evasive manuever (successful or not), cannot fire any weapons during the current turn phase. If that ship has already had it's opportunity to fire during that turn phase (whether it did so or not . . .), it may not fire during the next phase of opportunity.

The evasive manuever can be attempted even if the ship in question has no movement points remaining during the turn. This is an exception to the normal course of the game. Gamemasters are warned not to allow this to be misused by heading for next turn. To discourage this practice, one point of stress damage to superstructure is taken every time an evasive maneuver is attempted.

REVERSE

Starships can travel in reverse; the maximum allowance is 2 hexes per turn. If the ship did not move during the preceeding turn, there is no penalty for the change in direction. If the ship moved during the last turn, there is an automatic point of superstructure damage suffered and the helmsman must make a saving roll to avoid further superstructure damage. The helmsman must make the saving roll against his Starship Helm Operations stat with the following modification: +10 for every point moved during the preceeding turn. For example, if the Enterprise wished to make this direction change and moved 4 hexes during the preceeding turn, Sulu must roll an 89 with 40 added to the die roll.

If the saving roll is failed, additional superstructure damage points equal to the number of hexes moved during the preceeding turn are suffered. If Sulu misses the roll, the Enterprise will suffer the 1 automatic damage point and 4 additional points of damage to the ship's superstructure.

If the maneuver is attempted during the middle of a turn, the movement plotted for the current turn is used to figure the saving roll modification and additional damage.

The reverse maneuver can also be used to evade incoming photon torpedo or plasma bolt fire. The normal procedure is followed and if the saving roll is successful, only half of the normal damage is applied. Any automatic superstructure damage points are still applied.

If the saving roll is issued, full combat damage and any other penalty superstructure damage points are applied and normal movement is continued.

All of the reverse maneuver rules apply when changing from reverse to forward movement.

MOVEMENT PER PHASE TABLE

Movement Points	Movement Points Used *Phase 1*	 *Phase 2*	 *Phase 3*
1	None	1	None
2	1	None	1
3	1	1	1
4	1	2	1
5	2	1	2
6	2	2	2
7	2	3	2
8	3	2	3
9	3	3	3
10	3	4	3
11	4	3	4
12	4	4	4
13	4	5	4
14	5	4	5
15	5	5	5
16	5	6	5
17	6	5	6
18	6	6	6
19	6	7	6
20	7	6	7
21	7	7	7
22	7	8	7
23	8	7	8
24	8	8	8
25	8	9	8
26	9	8	9
27	9	9	9
28	9	10	9
29	10	9	10
30	10	10	10

SCIENCE OFFICER

The science officer's main job during battle is the gathering and processing of information. Through scanners/sensors the science officer keeps track of the status of the enemy ship(s) and, through internal sensors and reports, of damage to her/his ship.

Extensive charts are not needed for this. The science officer's console has a track for recording the status of external ship sensors/scanners. These sensors are the only method to obtain information not obtainable by other means. Visual contact can still be maintained. Sensors do affect weaponry (see Helmsman). Usually, the counter should be on the "operational" space. If the sensors are damaged in battle, move the counter to the "damaged 1" or "damaged 2" space. The number refers to the number of turns sensors are out due to hits.

To use ship's sensors to discover information about another ship, a sensor lock must be obtained. This is attempted at the beginning of the turn before movement begins. The science officer should indicate the target ship, then make a successful saving roll (on % dice) on the ship's sensors skill. If successful, a sensor lock is obtained (move the counter to the "locked" position) and information can be obtained about the target ship.

Once a lock is accomplished, the Gamemaster (or enemy player, if there is one) must give the science officer the following information: 1) type and/or size of ship or object, if known by Federation; 2) life forms present and status (alive, how many, type); 3) whether or not defensive shields, if any are up; 4) composition of objects (steel, energy, unknown, etc.); 5) status of composition (fluctuating, solid, gaseous, etc.)

As the situation develops, players may want or need further information through these readings. The following are a few suggestons. Feel free to add as you see fit. 1) approximate damage to shields (down, up but weak, up full); 2) damage done to vessel (port warp engine destroyed, superstructure severely damaged); 3) status of life forms (approximate number of casualties); 4) changes in structure; 5) any transporters activated; 6) energy fluctuations (equipment requiring large amounts of energy (weapons, etc. activated or fluctuations due to damage; approximate number of energy points available).

Only one ship may be "locked in" at a time. A lock remains until 1) the target ship scores a hit on the ship with sensor lock (whether or not the sensors are knocked out or 2) the science officer tries for another lock on a different ship.

Whenever damage to the ship is taken in battle, it is the responsibility of the science officer to determine what form the damage has taken. Points of damage are first taken from the appropriate deflector shield by the navigator. Each hit accumulates on the shield hit. Extra points put into a hit above the number needed to 'take out' that shield are not wasted. For example, a shield has 8 points in it. Two 5 point disruptor bolts hit the shield. The first hit reduces the shield's defensive power to 3. The second hit reduces the shield to 0, with 2 points left over. Roll a die on the Damage Table for any extra damage. Roll once, no matter how many points of power got through the shield. If the hit was any result but superstructure or warp, the system is out as usual. If the hit was superstructure, impulse or warp, the structure hit takes a number of damage hits equal to the power put into it. In our example, if the superstructure was the result, the target ship would take two hits, or boxes, on the Super-structure Stress/Damage track. Remember, the Klingons do not know how many points of shielding you have up.

If damage beyond the shield capacity is suffered, one roll on the damage chart must be made for each hit by a different weapon. In other words, each hit by a separate disruptor would require a separate roll on the damage table for the direction the hit came from. For each result (each hit) on superstructure, warp, or impulse the item hit receives a number of damage points (boxes on the appropriate track) equal to the power put into them. If a 5 point hit was on the warp engines, the marker on the warp track would be moved 5 boxes. If the hit result was any result other than warp, superstructure, or impulse, the system hit is damaged as usual. A 5 point hit on phasers does not knock out 5 phasers, just one.

Apply the results of the die rolls as follows:

SENSORS OUT – No sensor information obtained for 1 or 2 turns. (Roll a D10. 1-5 sensors are out 1 turn. 6-10 sensors are out 2 turns). Sensor lock is lost and must be regained with a saving roll.

SHIELD GENERATOR DAMAGED – The noted shield is no longer functional, and no shields can be maintained on that hex side for the duration of the scenario.

WEAPON (phaser, torpedo tube, etc.)DAMAGED - The named individual weapon no longer operates for the duration of the situation.

SUPERSTRUCTURE HIT – The science officer records the noted number of hits on the superstructure track. This does not necessarily represent the ship falling apart. What it does represent is systems damaged, hull damage, internal structure damage, electric conduit damage, etc. Basically, super damage represents portions of the vessel rendered unusable in the time scope of the situation.

CASUALTIES – The number given in parentheses after other damage is the number of casualties taken in the hit. Casualties are not necessarily deaths. Most often they are crew members injured or shook up enough that they can no longer function in the current situation without medical attention. (See Communications Officer section for further details on effects and recoding casualties taken).

BRIDGE PERSONNEL OUT – Bridge personnel are shaken about, making it possible for them to be unable to perform duties for the current turn. All bridge personnel must attempt a standard saving roll on their DEX attribute with a +20 die roll modifier to the attempt. Those who fail may not operate any equipment on their panels for the current turn. Those who make the roll may attempt to operate equipment controlled on their console at a +2 to all 1D10 die rolls. (They are still required to record damage, casualties, etc.) On the next turn, anyone who failed the saving roll may attempt another, with no die roll modifier. If they make the roll, they have a +20 on % rolls and +2 on D10 rolls for the turn. All those who passed in the previous turn do not need to make a saving roll this turn and may perform normally. Any crew members required to perform this second save may not change anything on their panels for the turn. Thus, all energy allocation will remain the same if the engineer is out of action, no weapons can be fired if the helmsman is out of action, etc.

WARP ENGINE HIT – The noted engine has its power available reduced by one on the engineer's console. (Such damage may be repaired later by the engineer). Warp damage does not necessarily mean structural damage. Warp engine hit includes circuits shorting out (therefore, possible repairs - see Engineer), electrical conduits broken, temporary outages of power, etc.

IMPULSE ENGINE HIT – As above, but for the impulse engines.

The science officer keeps track of the damage to the ship's superstructure on a track on the sciences console. The counter starts at zero and is moved ahead to reflect superstructure damage. If the counter reaches the last space (variable, according to type of ship), the ship's structure is irreparably damaged and the ship is no longer spaceworthy. It is not destroyed – the crew may still escape by transporter or shuttles – but the ship cannot move or fire. It is, in effect, totally disabled.

NOTE:

Repairs after the scenario can be effected. Rarely during a situation will an Engineer be able to repair more than a few points of damage. The engineer will be busy trying to get more power out of the engines he has left, or more speed for the helmsman. Repairs to all damage take place at a rate of 1 superstructure point, 1 engine point, 1 shield, or 1 weapon repaired at a time. If a superstructure or engine suffers 50% or over damage, repairs must be effected at a Star Base. Repair rate is one point per hour.

ENGINEERING DAMAGE TABLE

Die Roll	*Damage Result*
1 – 2	Shield Power Grid (SPG) down
3 – 4	Weaponry Power Grid (WPG) down
5 – 6	Maneuver Power Converter (MPC) down
7	SPG and WPG down
8	SPG and MPC down
9	WPG and MPC down
10	All power systems down

COMMUNICATIONS OFFICER

The communications officer keeps track of crew casualties. Casualties include any crew members too badly hurt during battle to continue to perform their duties.

There are three tracks for keeping count of crew casualties, one each for ones, tens, and hundreds. The total of the three tracks is the number of crewmen out of action.

Casualties cause loss of ship efficiency. Rather than keep track of personnel losses in individual departments (engineering, fire control, etc.) the communications officer keeps track of casualties on these tracks for the whole ship.

The reduction in efficiency due to crew loss is kept track of abstractly. For every 10% reduction in crew (every 43 crewmen on the Enterprise) all die rolls, except for individual's skill rolls, are modified by a +1 on the die roll. Die rolls affected are: 1) turn stress rolls and 2) weapons rolls. These modifications represent the loss of crewmen in these departments. Sulu may push the button, but someone has to be 'down there' keeping the equipment working during combat.

In addition, the communications officer controls all internal and external communication. There are no tracks on the communications console for this function, but it is an important one nevertheless. The communications officer may be called upon to hail an unidentified ship, call for the surrender of an enemy vessel, send a message to Star Fleet, etc.

Usually, the operation of a normal communications functions do not require saving rolls. However, the gamemaster has the option of asking the communications officer to make a saving roll on the Starship Communications Procedures skill level whenever an unusual or difficult communications task must be performed. Examples of such would be completing communication through atmospheric disturbances of enemy jamming, intercepting and decoding enemy transmissions, translating unknown languages, using the ship's computers, etc.

He can use *Communication Systems Operation* to penetrate jammed communications. He can use *Damage Control Procedures* to reduce damage effects from incoming fire, or to repair minor damage to the superstructure. He can use *Communication Systems Technology* to repair the communications console after a bridge hit; no damage control or communication is possible without such repair.

Damage Control Parties are directed by the Communication Officer. A successful DC save can restore, at least temporarily, one system or repair one additional superstructure point. A Critical Success roll will restore two repairs of Officer's choice.

CREW CASUALTIES

Superstructure Strength	% Casualties Per Superstructure Point Damaged
1	100
2	50
3	30
4	25
5	20
6	18
7 – 8	14
9 – 11	10
12 – 14	8
15 – 19	6
20 – 34	4
36 – 50	2
51+	1

Medical Officer

He can use *General Medicine* to restore casualties to active duty; if a ship takes enough casualties, its efficiencey decreases. He can use *Life Support Technology* to repair a damaged life support system.

Security Officer

During ship combat, Security particpates in damage control, assists all departments where needed, reports on wounded found, act as first aid, rescue and triage in such cases, ensure all personnel are where they are supposed to be, that there are no intruders and to generally act as the glue keeping any loose seams together.

Security Chief adds 1/10 ST Security to the Crew Efficiency and any combat related morale or other rolls.

SIMPLE GAMEMASTERING SYSTEMS

To-Hit

Use the Helmsman's Skill Roll against his rating in *Starship Weaponry Operation*. Modify this for range, adding for short range and subtracting for long range. Modify it for fancy maneuvering, subtracting if either vessel evaded.

Damage Location

Use this system or one like it if you want. Otherwise, make it up as you go along. The main thing is to have fun. Roll 1D10 and consult the table.

QUICK DAMAGE LOCATION

Die Roll	*Damage Location*
1 – 5	Superstructure
6 – 7	Engine (choose which)
8	Weapon (choose which)
9	Shield generator or Sensors
10	Special (bridge hit, engine room hit)

Shielding

Use this system or one like it if you want; otherwise, make it up just like you did when you were a little kid. Roll 1D10 and consult the table. For incoming fire, only roll if the Navigator fails his Skill Roll against *Deflector Shield Operation.*

QUICK SHIELD EFFECTS

Die Roll	*Effect*
1 – 5	Shield absorbs damage
6 – 7	Graze; shields penetrated; slight damage
8 – 9	Direct hit; shields penetrated; moderate damage
10	Heavy damage. "She's gonna blow!"

Ships may not fire through other ships, planets, or other obstacles big enough to be placed on the map during starship combat.

USING ATTRIBUTES

Whenever the bridge takes a hit, each character should make a Saving Roll against his DEX score. If the roll is successful, the character was merely shaken, having gripped the console tightly enough to remain virtually in place. If the roll is not successful, the character may not function at his duties in the next turn, for he has been thrown about and needs to recover. He should then make a Saving Roll against his END score to determine if he takes any temporary damage.

If this roll fails, then the character takes 5 points of temporary damage from the fall; if the roll is 96 to 00, he takes 5 points of wound damage from the bashing his head took as it hit the console edge (or something – be creative!).

GAMEMASTER

The gamemaster will often be called upon during a campaign to "role play" the opposing ships in a battle. It would be cumbersome to do so using the complete role-playing combat system outlined in the previous sections, especially if there is more than one enemy ship. For this reason, a simplified ship control system has been developed.

The simplified system is not intended for use by players to operate ships crewed by player characters, as the system – somewhat intentionally – limits the options more than the full system with multiple consoles. It may be possible that players will at some time wish to use the simplified system to battle. By the same token, if there is only one enemy ship involved in a battle (perhaps crewed by important non-player enemy characters) the gamemaster may wish to use the full system for the enemy as well.

Also, the full role-playing ship combat system makes a fine competitive game for two teams, each trying to defeat the other. Each ship type in this game (and in future expansions from FASA) has the gamemaster console. Some of the ships included also have the full set of charts (as does the Klingon D7).

In explaining the gamemaster-controlled "quick system", the gamemaster console for the Klingon D7 Battlecruiser will be used as reference, much as the Enterprise was often used as reference for the full role-playing rules. Other ships will vary slightly in weaponry and capabilities, but the basic rule system will apply to those as well, with rule variations noted with the ship descriptions. In reading these rules, it is best to keep the Klingon D7 Battlecruiser gamemaster console at hand for reference.

The Action Table on the gamemaster console replaces the system of energy allocation in the full system. This table presents various allocation options, some concentrating on maneuverability, some concentrating ship's power in shields and weaponry, others finding a middle ground. At the beginning of each turn, one option is chosen for a ship and the Action Counter is placed beside it. This shows which systems have power for that turn.

The Klingon D7, for example, has ten possible power allocation options. If it chooses to devote power solely to movement, it may move 9 or 10 hexes during the turn, but may not have any deflector screens or use any weapons. Other options allow less movement, but allow 1, 2, 3, or even 4 screens to be raised. Some of these other options allow some screens and some weapons to be active, others allow only screens or weapons but not both.

Thus, the gamemaster-operated ship must allocate resources like the player-controlled ship, but not in the same way. When an option is chosen, it means only that power is available for such action. A ship must move at least the minimum number of movement hexes listed under its action choice, but weapons listed as available need not be fired, nor shields listed be raised if the player does not wish to use them.

A gamemaster (or non-player) controlled ship will not likely have a full set of bridge crewmen characters generated, nor even skill levels for individual crewmen noted. For this reason, the quick system requires only two skill ratings. A STARSHIP COMBAT TACTICS/STRATEGY skill level should be determined for the ship's captain. This rating is compared with the enemy captain's rating to decide combat initiative, as in the full system. Also, a CREW EFFICIENCY RATING should be noted for the non-player ship.

The crew efficiency rating is treated like a skill level, and can range from zero to 99 in the same manner. It is usually specified as part of a scenario, or determined by the gamemaster. (In the case of a chance encounter not prepared in advance by a gamemaster, % dice can be rolled to determine the crew efficiency rating for a ship.) A saving throw on the crew efficiency rating is made wherever a skill roll for an individual crew position would have been made in the full system.

The TURN CHART on the quick system console works just like the turn chart for the full system consoles. Maneuver, requiring a turn of one hex side per phase (that is, per hex of movement) can be made with no strain. A two-hex side turn may put stress on the engines and superstructure at high speeds.

If such a turn is made, stress damage is taken according to the overall speed of the ship (sublight, warp 1, warp 2, and so forth). These are recorded on the appropriate tracks. Once per turn, a saving throw on the crew efficiency rating may be atempted. If successful, the stress damage done by the turn is reduced one step, to the amount of damage that would have been done had the ship been moving at a speed one warp factor lower.

There is a track for keeping count of SUPERSTRUCTURE STRESS/DAMAGE, just as in the full system. It works the same - if a ship reaches the highest number on its track, it is hopelessly crippled and cannot move or fight.

The multiple tracks for ENGINE STRESS/ DAMAGE and power in the full system have been combined into one track for the quick system. The counter on this track starts at the highest number (40, in the case of the Klingon D7), and is reduced as damage is taken from stress or weapon hits. Alongside the track are notations for various weapons, shields, and maximum speeds. Whenever the counter is moved down alongside one of these notations, the ship's capabilities are reduced accordingly, for lack of power.

For instance, on the Klingon D7, if the engine stress/damage track is reduced below 35, the ship's maximum speed is reduced to 8 hexes/turn. If further reduced below 34, one disruptor is considered inoperative due to lack of power. Thus, if the Klingon captain chose the full movement option this turn, he could move only 8 hexes even though the option allows him to move 10. Similarly, if he had chosen a low movement option that allowed him to fire all 4 disruptor banks, he would have been able to use only three, as he hasn't enough power for the fourth.

When systems like shields and weapons are inoperative due to power loss or use of the system, note this by placing a no power marker on the appropriate damage chart on the console. NOTE: These systems are not damaged! If power is restored to them they will work! For this reason, separate track must be kept of systems out due to power loss and systems out due to damage. These can overlap, as well. (A wise captain who is forced to power down one system will power down one already damaged anyway, if he has one!)

Once per turn, a saving throw may be attempted on the crew efficiency rating. If successful, the ship regains one point of engine/stress damage or one point of superstructure stress/damage as chosen by the person operating that ship. If reducing the amount of engine stress/damage raises the counter on the track above the level at which a system was powered down, that system may be powered up again.

Unlike the full system, in this system a deflector shield is either up or down. If it is up, it has its full protective power, which is noted on the ship statistics and on the full-system console for the navigator. The number of shields that can be up during a turn is determined by the option chosen. It is up to the person operating the ship to decide which shields will be raised, if any. These are indicated by placing a shield marker in the appropriate hex of the DEFLECTORS RAISED display on the console. Remember that a damaged or powered down deflector shield cannot be raised.

If a hit is taken on a shield (determined just as it is in the full system), the shield will absorb it if it does less damage points than the shield's rating. All damage done to the shield during the turn is cumulative for purposes of punching through that shield's protection. For each hit by a weapon once the shield is down, roll for damage as in the full system.

There is only one damage chart for the quick system, used no matter what side was attacked. Superstructure hits are noted on the appropriate track, as are engine hits. Note that on each gamemaster panel there is a note that states Impulse – No. Boxes. This is how many of the spaces on the engine track are impulse engines. If a hit is scored on impulse, this is the maximum number of spaces that can be marked off. If the chart indicates a shield is knocked out, place a DAMAGED counter on the shield struck on the deflector damage chart. If that deflector is already damaged, no further deflector damage is taken.

If a weapon is damaged, place a DAMAGE counter on one of the noted weapons, if the ship still has one that is undamaged. If all the appropriate weapons are damaged already, no further damage can be done. NOTE: Firing arcs are used to determine if a shot can be fired. However, which weapons are damaged is not kept track of. Therefore, which weapon is fired is not important, as long as the target is within the arc of any similar weapons.

Weapons charts are also on the quick system console, with range and to hit roll determined in the same manner as in the full system. In the quick system console, with range and to hit however, weapons are always fired at full strength. Instead of a "damage +" column, the third column on the weapons table will show the total damage delivered by each weapon of the listed type fired.

The "to hit" roll must be made for each separate weapon fired. Once the number of hits are established, however, the damage for those hits is totalled and applied to the enemy shields and ship as in the full system.

Note that the quick system has advantages and disadvantages in comparison to the full system. The full system provides the maximum in role-playing enjoyment and combat flexibility, but it would be inconvenient for a gamemaster to use this system (all consoles for the enemy run by the gamemaster) for every random encounter, or to use it for mass battles.

The quick system does not allow for as much variation in battle strategy as the full system. To some extent, this is good. We couldn't have the Enterprise being blown out of space every adventure, could we? The lack of variation is made up for, to some extent, by a bit more freedom. Not keeping track of which weapons on which side were knocked out, for example.

Overall, gamemasters are encouraged to use the full system for encounters with ships run by important non-player characters. Every crew should have at least one or two recurring villains who are as skilled and as resourceful as they. It keeps things interesting. The quick system should be used for random encounters, multi-ship battles and short engagements.

Also remember that the job of the gamemaster is not to frustrate the players at every turn or destroy them in battle. Ship combat should be challenging for the players, but not suicidal. The gamemaster is, in effect, "writing" an "episode" of STAR TREK in every game. It would be a poor episode if the Enterprise were blown up in the first five minutes! Be reasonable, even lenient, when necessary, to keep the players interested but not frustrated.

SHIP COMBAT SAVING ROLL TABLE

Below is a list of all skill rolls normally used in ship combat. Four things are given: 1) Officer the roll is made by, 2) Name of the skill used, 3) When the roll can be made, and 4) the result of a successful roll.

CAPTAIN

1) STARSHIP COMBAT STRATEGY/TACTICS, beginning of turn, no roll is made but skill is compared to opponent's skill.

ENGINEER

Only one roll may be made per turn.

1) WARP DRIVE TECHNOLOGY, made at the beginning of the turn, success gains 1 extra point of power to be applied to total power available track (2 points if roll is 01-05).

2) STARSHIP ENGINEERING (GENERAL), made at the beginning of the turn, success reduces stress on one engine by one step (2 points on one engine or 1 point on each of two engines if the roll is 01-05).

3) WARP DRIVE TECHNOLOGY, made at the beginning of the turn, success allows helm to change overall warp speed by 2 steps instead of 1.

NAVIGATOR

1) DEFLECTOR SHIELD TECHNOLOGY, made at the beginning of the turn, success gains 2 more points of shielding to be used anywhere.

HELMSMAN

1) STARSHIP HELM OPERATION, made any time needed, success decreases all types of stress damage by 1.

2) SHIP'S WEAPONRY TECHNOLOGY, made when firing – may roll twice per turn, success gains a -1 on 'to hit' rolls of weaponry.

SCIENCE OFFICER

1) SHIP'S SENSOR SKILL, made at the beginning of the turn, success gains sensor lock.

COMMUNICATIONS OFFICER

1) STARSHIP COMMUNICATIONS PROCEDURES, may be made anytime, allows difficult tasks to be performed.

The gamemaster may roll on his ship's crew efficiency rating once per turn on any one of the skill rolls listed below.

1) Superstructure stress
2) Engine stress
3) Turn stress table
4) Speed change

SHIP COMBAT SEQUENCE TABLE

The following is the sequence of events used in combat:

1) Determine which side has the tactical advantage (Compare captain's skill).
2) Decide which side is to move first. (Winner of No. 1 to decide).
3) Side moving first moves if movement plotted.
4) Opposing side moves.
5) Play rotates among all sides, more than two. When all ships have exhausted possible movement, a new turn is begun.

The following is the sequence taken at the start of a ship's turn:

1) Power available is determined by the engineer.
2) Any skill rolls to be made at the beginning of the turn are made.
3) Power is channeled as needed – to shields, maneuver, etc.
4) Power usage and weapon usage is kept track of during the turn.

The following is the sequence taken when firing at another ship:

1) Captain orders ready weapon fired. Weapon then marked unarmed.
2) Helmsman determines range.
3) Helmsman makes "to hit" roll with any applicable modifiers.
4) If a hit is achieved, determine damage.
5) Damage applied to opposing ship.
6) Sequence reverts to normal play.

If your vessel is hit during combat, use the sequence below:

1) Determine hexside hit.
2) Determine if shields hold.
3) If not, determine how many points of damage or what system was damaged.
4) Apply damage results.

ROLE-PLAYING AND FEDERATION POLICY

If players are not guided by the philosophy and fictional background of STAR TREK, there is a danger that ship encounters will become bloody shoot-'em ups. Weaponry in STAR TREK's time is terribly devastating. One ship can level a planetary city in moments. A ship of the Constitution class carries enough firepower to destroy a planet. Such energies must not be used lightly!

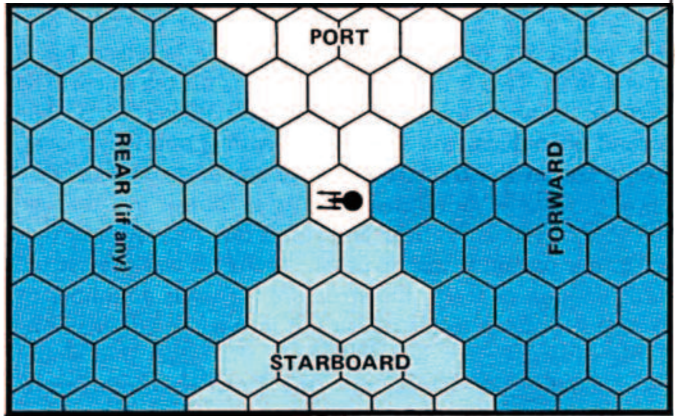
The major element of play balance in ship combat scenarios is the Federation's reluctance to use deadly force. Federation star craft captains are trained to attempt to avoid combat situations through diplomacy and tactical bluff if possible. Federation representatives never fire first, and will usually allow an enemy vessel to break off battle, unless allowing the enemy to escape would jeopardize Federation security.

Even the Klingons and Romulans do not fight when there is nothing to be gained by fighting. Klingon captains tend to be trigger-happy, but only because winning victories is the only way they can advance in rank and status. Romulans are battle veterans, but function as disciplined military strategists, not beserk killers.

The drama and excitement of ship combat is heightened when the reasons for conflict are reasonable and when combat is only joined after the captain involved has tried every other reasonable method of solving the problem. Starship captains are not afraid of battle; they are simply mature, experienced beings who realize that violent action—while not always avoidable – is the last resort in galactic interaction.

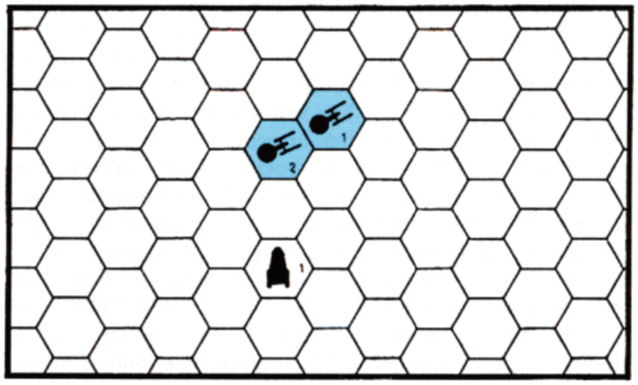
When the game becomes a "Klingon hunt", the charm and message of STAR TREK goes out the window – and so does play balance. A Constitution class starship (all other factors equal) is capable of annihilating a Klingon D7 Battlecruiser, especially if the Klingon ship is played using the quick system. But the Federation vessel is constrained by the fact the the Federation is never an aggressor!

Ship combat is an important part of the game, and can be a good game in itself. But as part of a role-playing campaign, it must not be allowed to totally dominate the action. A gamemaster must insist that Federation officers behave like Federation officers and not like warmongers.



SHIP COMBAT EXAMPLE

For our example of how the ship combat system works, let's use a Constitution class ship and a Gorn cruiser that has attacked it. Starting positions are marked on the map below as C1 for the Constitution class vessel and G1 for the Gorn cruiser. Lay out the full Constitution class panels and the gamemaster Gorn panel. Use markers to follow the example.



Let's assume that the ships have fired on each other previously, but with no damage to either (the shields held). All power is available to either vessel. C1's captain has a Strat/Tac skill of 64 and G1's skill level is 52. The Gorn crew has an efficiency rating of 49, just below average. Full panels are being used by the Federation players and the simple system is in use by the gamemaster.

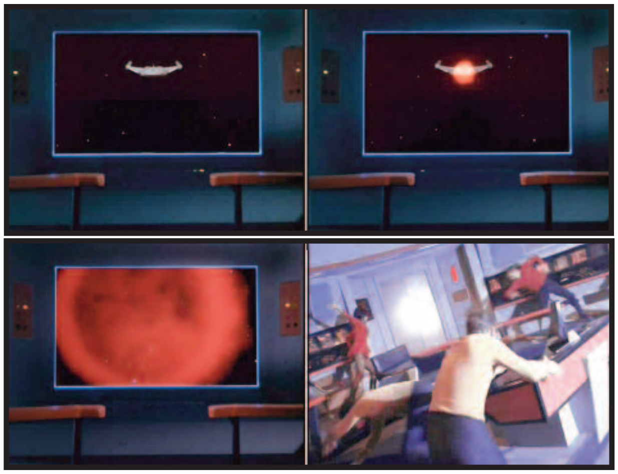
The engineer has failed his roll to gain extra power for the engines, so C1 has 44 points of power available to use. 8 points are used for maneuver, yielding 2 movement points. 19 points are put into shields, and the other 17 are used for offensive weaponry.

The helmsman puts a marker on the "2" space on the movement points available track.

Of the 19 shield points, 9 are put into the forward shield and the other 10 into the port-fwd shield, as these two sides are toward the Gorn. These are marked on the appropriate tracks. Let's hope the Gorn doesn't move to get a clear shot at an unshielded side.

Two of the 17 weaponry points are used to arm the torpedoes. Ten are used to fully arm the fwd phasers, with the last 5 points going into the No. 1 port phaser. These are marked on the tracks on the helm panel.

The gamemaster chooses the 4th option. This allows him to move 3, 4, or 5 hexes. He marks the forward shield as up. He also will be able to fire one blaster.



C1 has the option of moving first, and does so. It moves straight one hex. The helmsman moves the marker on the movement points track from 2 to 1.

The captain orders torpedoes fired. The markers are moved from the arm to the unarm space on the torpedo tracks. The range is 2 hexes. The "to hit" is 1-10; automatic, so both hit. The helmsman did not need to use his skill roll to gain a modifier. Torpedoes have ten points of power in them.

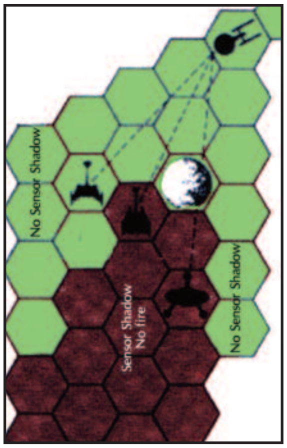
As you can see, the shot will hit the forward shield of the Gorn cruiser. Luckily for him, that's the shield he has up. Looking on the Gorn panel, we see that an 'up' deflector has 10 points of power in it. The first torpedo takes out the shield (10—10=0). The second torpedo therefore hits for full effect. The gamemaster rolls a 10-sided die to determine where the torpedo hit. He rolls a 10, an impulse hit. Note on the bottom of the gamemaster sheet it states "Impulse — 4 boxes". This is how many hits it takes to render the impulse engine useless on the Gorn cruiser. It took ten hits, but only has 4 boxes to lose. Therefore, the other 6 points in the attack are lost. The gamemaster moves the ENGINE STRESS/DAMAGE counter down 4 boxes from 40 to 36. He now has only 36 points of power available. He can now move only 6 hexes maximum.

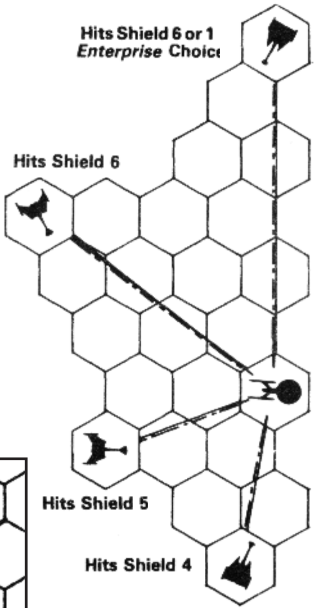
Before the C1 captain can order phasers fired, the gamemaster announces he is firing his blaster at the Constitution class ship. At the range of 2 hexes the blaster is listed as having a "to hit" of 1-10, an automatic hit. Seven points go into the C1's port-fwd shield. Fortunately, there are 10 points in this shield, so all 7 points from the blaster are absorbed. The Gorn ship only had one shot, but does not let the Federation crew know this. He merely states that he has no further weapons he wishes to fire at the present time.

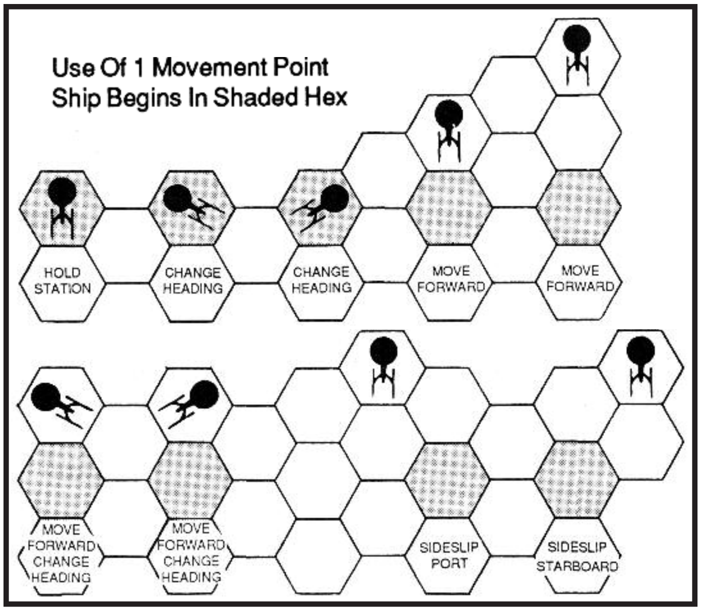
The C1 captain decides to go ahead and fire the phasers since the shield was knocked down by the torpedo attack. All three armed phasers are capable of firing on the Gorn. He first orders the No. 1 fwd phaser fired. At a range of 2, the hit is automatic, so again the helmsman does not need to make a skill roll for a + modifier. At a range of 2, there is a damage of + 3. There were 5 points of power put into this phaser, so it now has 8 points of attack power. A 10-sided die is rolled. A 2 is rolled, resulting in a Superstructure hit. The marker on the Superstructure stress/damage track is placed on the "8" box because 8 points were in the attack. One more hit like that and the Gorn will be helpless! The second fwd phaser is fired. Same range, automatic hit again. 8 more points hit. A die is rolled for location. A 6 is rolled; a shield hit. The fwd shield on the Gorn ship is damaged. A marker is placed on the "FWD" space on the deflector's damaged track. Even though 8 points went into the hit, only one deflector is damaged. This leaves one phaser to be fired — the No. 1 port phaser. It has 5 points in it also. The damage + makes this an 8 point attack as with the others. A die is rolled — a 7 is the result, a warp hit. The marker on the engine stress/damage track is moved down 8 more spaces, to 28. Maximum speed is now down to 5 hexes. plus 1 less blaster and 1 less deflector can be used.

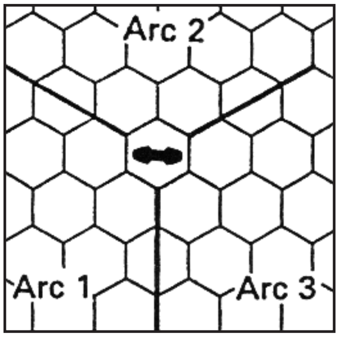
Both vessels have now fired all available weaponry. Both still have movement left, however. It is the Gorn's turn to move, as the C1 moved last. The Gorn decides he has had it, and decides to increase his speed and get away. He cannot do so immediately, however. He must instead finish out the turn, as a change in overall speed must be declared (and rolled for, if necessary) at the beginning of a combat turn.

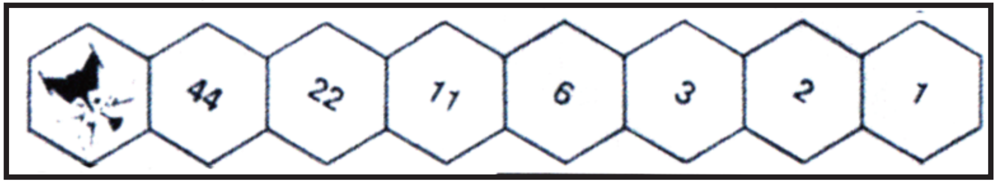
Once the next turn begins, the Gorn announces his intention to increase speed two increments, pulling out of the battle altogether. He rolls against his Crew Efficiency Rating of 49 (necessary to increase speed by two increments instead of one). He rolls a 23! He announces his speed increase (Federation sensors would pick this change up). The Federation captain decides not to pursue, and the combat is over.











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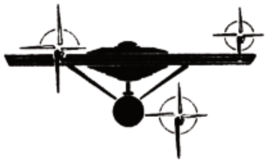
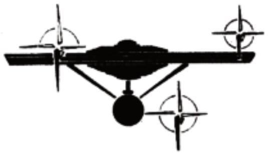


CRITICAL HITS IN STAR TREK III STARSHIP COMBAT



By **Blaine Pardoe**

"Sensors indicate the unidentified vessel is closing at Warp Factor Five. Her shields just went up," Stevenson said from the Science Officer's station.

Captain A'ovin did not seem shaken. "Raise our shields. Helm, increase speed to Warp Five, starboard 46 degrees. Arm phaser banks." The pale blue Andorian continued to sit passively in the command chair as the approaching ship came into visual range. "Just as I thought, an Orion pirate."

"They've locked on," reported Shamar, the Vulcan Helmsman, in his usual unimpressed tone. A'ovin strained forward in his seat as the image of the attacking ship brightened on the viewscreen. He knew what it was before the Science Officer reported.

"Incoming photon torpedo at 356, Mark 21!"

"Evasive action, hard to starboard." A'ovin punched the intercom stud on the command chair. "All hands brace for impact!" He had not counted on this. Who would have thought an Orion would have torpedo banks? As the torpedo raced toward the *USS Welsby*, A'ovin felt bile rise from the pits of his two stomachs.

The force of the impact caught everyone by surprise. A'ovin was knocked out of his seat, along with most of the bridge crew. The helm controls expolded, filling the air with smoke and sparks. Feeling his right shoulder ripple with pain, A'ovin instinctively knew his collar bone was broken. He slowly lifted himself to standing. Several of the bridge stations were smoldering, and the deck reverberated from explosions rocking the lower decks.

"Damage report, Mr. Stevenson."

"Heavy damage on Deck Five, Reserve Photon Torpedo Storage. They're still going off down there, sir. Hull breached from Sections 27 to 34. Emergency bulkheads holding. I've got damage control crews on their way."

A'ovin carefully sat back in the center seat. Damn. What were the chance of being hit there?

The chance for lucky shots exists in any field of combat and ***STAR TREK III* Starship Combat Game** is no exception. Devastating damage is rare, but the possibility of its occurring does add an element of realism to any scenario.

The tables below are designed for the Expert Starship Tactics rules of the **Starship Combat Game**. Each time a hit is scored against a vessel, the Detailed Damage Charts are consulted, as per the rules. Percentile dice are rolled; if the results are five percent or less, the Critical Hit Tables are used. Roll percentile dice again to determine the *additional* damage inflicted.

CRITICAL HIT TABLES

Engine Hits

01 15	Electrical fire in engineering. No power allocation changes for 1D10 turns.
16 - 26	Mains off line. All power from warp engines out for 2D10 turns.
27 – 35	Impulse engines off line. No power from impulse engines for 2D10 turns.
36 – 44	Coolant leak. No power allocation for 1D10 turns.
45 – 60	Engineering crew casualties. No power allocation for 1D10 turns.
61 – 74	Radiation leak in engine room. No warp engine power for 1D10 turns.
75 - 80	Dilithium crystal burnout. Remaining warp engine power reduced by half for duration of game.
81 – 90	Warp engine imbalance. Each turn warp engine power is used, there is a 15% chance of ship exploding.
91 – 100	Maneuvering thrusters damaged. Ship may not change course for 1D10 turns.

Superstructure Hits

01 – 8	Hull ruptured. Roll percentile dice for additional casualties.
9 – 14	Fire on lower decks. Additional percentage of casualties equal to three times damage points inflicted.
15 20	Life support damaged. Additional percentage of casualties equal to two times Damge Points inflicted.
21 – 27	Computer damaged. Helm and Navigation functions out for 1D10 turns.
28 – 33	Sickbay damaged. Additional percentage of casualties equal to damage points taken.
34 – 47	Radiation seepage into hull. Additional percentage of casualties equal to two times damage points inflicted.
48 – 58	Gravity control damaged. Ship never has advantage to move or fire first for rest of the game.
59 - 63	Emergency decompression. Ship cannot perform any new action for two turns as crew gets into Environmental Suits.
64 - 74	Navigational scanners damaged. Treat as Sensor Damage.
75 – 83	Maneuvering thrusters misfire. Ship pivots one hexside (1-5 port, 6 – 10 starboard), taking any stress damage necessary.
84 – 93	Internal explosions. Add two additional points of Superstructure Damage and 5% crew casualties.
94 – 100	Emergency batteries explode. Additional percentage of casualties equal to damage points inflicted.

Shield Generators Hit

01 – 10	Shield controls overload. Ship cannot raise shields for remainder of game.
11 15	Shield instability. Powered shields will fail on a roll of 75 or less on percentile dice. Once a shield fails to pass a roll, it is down for the remainder of the game.
16 – 30	Shield instability. As above, but on a roll of 50 or less.
31 – 59	Shield instability. As above, but on a roll of 25 or less.
60 – 70	Shield generator overload. One additional point of Superstructure Damage.
71 80	Shield governor disabled. All shields will fail in 1D10 turns for duration of the game.
81 - 100	Shields frozen. No changes in any shield level can be made for 1D10 turns.

Beam Weapon Hit

01 – 19	Power overload. One additional point of Superstructure Damage and percentage of crew casualties equal to .5 times damage points inflicted.
20 – 39	Beam weapon meltdown. Take 1D10 points of Superstructure Damage.
40 – 60	Coolant leak. Additional percentage of crew casualties equal to .2 times the damage points inflicted.
61 74	Fire control computer Damaged. No weapons may fire for 1D10 turns.
75 – 100	Fire control lock-on inoperative. Add + 2 to the To-Hit Roll for the rest of the game.

Missile Weapon Hit

01 – 30	Firing tube hit. Take 1D10 additional Superstructure damage points and same amount for additional percentage of crew casualties.
31 59	Fire 1D10 turns. Fire control computer damaged. No missile weapons may fire for 1D10 turns.
60 75	Torpedo misfire. Missile weapons will fail to fire 50% of the time for the remainder of the game.
76 – 84	Discharge system damaged. Additional percentage of crew casualties equal to .2 times the damage points inflicted.
85 – 100	Reserve torpedoes explode. 1D10 stored torpedoes explode. Roll on proper Damage Chart as if each was an automatic hit doing one-quarter normal damage on the sector of the ship originally damaged in the attack.

Use the guidelines below for any hit that is not of the Engine, Superstructure, Shield, Beam Weapon, or Missile Weapon type.

Bridge Hit	Use the Standard Starship Expert Rules. No Critical Hit.
Tractor Beam Hit	Use the Superstructure Critical Hit Table.
Engineering Out	Use Engine Critical Hit Table.
Sensors Damaged	No Critical Hit.
Romulan Missile Weapons Hit	Use Beam Weapons Critical Hit Table.

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BRIDGE HITS IN *STAR TREK:* THE ROLE PLAYING GAME 2

By **Kevin Keohane**

"Incoming!" the young helmsman cried. Hardly a second later, before Captain Stewart could open his mouth, a wrenching wave of destruction passed through the bridge. Stewart was thrown from the command chair; Science Officer Phethe's panel exploded in a cascade of fire and smoke. The unmanned Defensive Subsystems Station belched greenish smoke and caught fire. Emergency lighting came on, illuminating the carnage of the bridge hit.

"Damage report..." Stewart said into his intercom.

Missing from ST:RPG2's Starship Combat System are the specifics of what exactly happens on the 'Bridge Out' hit. Nor did the second edition rules add much, either. The ***STAR TREK III* Starship Combat Game** offers two tables for 'Bridge Personnel Shaken', and 'Bridge Systems Shaken' but their detail is also somewhat lacking. For role-playing, it is important to know the exact amount and location of bridge damage, especially when you consider that most of your player characters are on the bridge when it is hit, and most of the damage could affect them. This article offers a system that should add a new dimension to starship combat, creating a more realistic situation as the characters strive to patch together their stations before the next enemy volley is taken.

For every two points of damage taken on a 'Bridge Hit' result, roll once on the table below and apply the results.

D100 Roll	System Affected
01 – 04	Command Chair
05 – 08	Navigation Panel
09 – 12	Navigator
13 – 16	Helm Panel
17 – 20	Helmsman
21 – 24	Communications Panel
25 – 28	Communications Officer
29 – 32	Science Panel
33 – 36	Science Officer
37 – 40	Navigation Subsystem
41 – 44	Assistant Navigator
45 – 48	Helm Subsystem
49 – 52	Assistant Helmsman
53 – 56	Weapons System Station
57 – 60	Weapons Officer
61 – 68	Main Viewscreens
69 – 70	Engineering Subsystem Panel
71 – 73	Assistant Engineering Officer
74 – 75	Environmental Systems Panel
76 – 78	Environmental Control Officer
79 – 82	Engineering Panel
83 – 86	Engineering Officer
87	Critical Hit: Captain
88	Critical Hit: Navigator
89	Critical Hit: Communications Officer
90	Critical Hit: Science Officer
91	Critical Hit: Assistant Navigator
92	Critical Hit: Weapons Officer
93	Critical Hit: Assistant Engineer
94	Critical Hit: Environmental Officer
95	Critical Hit: Chief Engineer
96	Critical Hit: Helmsman
97	Critical Hit: Turbolift
98	Critical Hit: Falling Debris
99	Critical Hit: Main Viewscreen
100	Bridge Destroyed

Description of Hits

Command Chair/Bridge Officer Hits: Character sitting in command chair must make a Saving Roll against his/her DEX score. If the roll is made, subtract 5 points from that character's CURR OP END. If the Saving Roll fails, the character subtracts 3D10 + 2 from the Curr Op End. If the character's Saving Roll was 01-10, he/she does not take any damage.

System Panel Hits: Station Officer (i.e. Navigator for Navigation Station, Communications Officer for Communications panel, and so on.) must make a skill roll his rating in *Damage Control Procedures* to repair station. Until then, the vessels subsystem for that station takes over. If there is no subsystem for that station, no new activity can be performed in that area until it is repaired (no maneuvering if Helm Systems are out; no change of shield power or facing if Navigation Panels are out; and so forth.) A Damage Control Party can be sent for and will help repair the system after they arrive (Gamemaster's discretion).

Main Viewscreens: The primary Command Intelligence displays on the bridge are out. Until a Bridge Officer who is not engaged in other activity *or* a Damage Control Officer makes a successful Skill Roll against his rating in *Electronics Technology,* the commanding officer loses 10 points from his skill rating in *Starship Combat Strategy/Tactics* per turn until the screens are repaired.

Critical Hits: Any time a critical hit occurs on a character, he/she takes the normal hit (save versus DEX, or 3D10 + 2 damage), then must roll on the table below:

1D10 Roll	Effect
1	Additional 2 – 20 points of damage.
2	Character is disoriented. No actions for 1-5 turns.
3 - 6	Character is thrown from station randomly 1 to 3 squares. If a solid object interferes, 1 – 10 damage is inflicted. Character is stunned; no actions for 1-10 turns.
7 - 8	Character severely shaken. All rolls made at – 25 for next two turns; – 10 for the third turn after hit.
9	Character affected by smoke and fumes. No action for 1-5 turns. Actions performed at – 25 for 1-5 turns after that.
0	Falling debris strikes and incapacitates character, doing 100 points of non-permanent damage (subtract from CURR OP END). Character will most likely be unconscious until medical aid is given.

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Critical Hit:

Turbolift - The turbolift has been damaged. No one can enter or leave the bridge for the remainder of the scenario (GM's discretion).

Main Viewscreen - The Command Intelligence Displays on the bridge are inoperative for the remainder of the scenario. The Captain's *Starship Combat Strategy and Tactics* skill loses 10 points per turn (maximum of −40).

Falling Debris - Falling/thrown debris hits any standing (or not at station) character. The character is pinned under the wreckage until freed by a combined STR of 120 (two or three other characters).

Bridge Destroyed - Unless *all* bridge personnel make successful Saving Rolls against their LUC scores, the bridge's hull integrity has been breached. The entrances/turbolift seal automatically, and the characters die in three combat turns (unless rescued or saved somehow).

Not all starships have all the systems listed above. If a system is damaged that does not exist, or a character is hit that is not on the bridge, either roll again or call it a no-effect result.

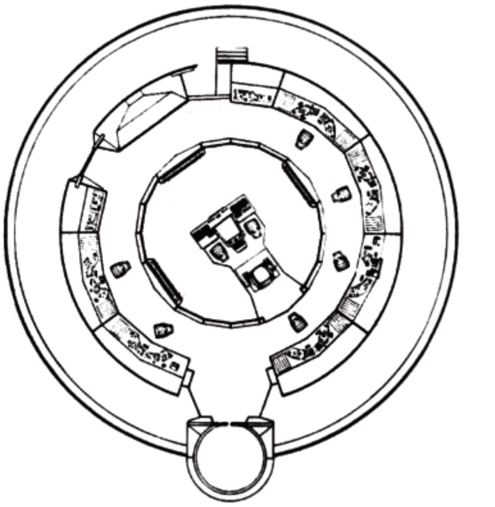
As you can see, this system adds some spice (and perhaps the smell of burnt ozone) to starship combat, since you can envision just what is going on when the bridge is hit. Obviously, this is a campaign- or adventure-oriented addition to the rules and would only be used when player-characters or NPCs were involved.

...Stewart winced as he stood up from his ruined command chair. Flames were licking from everywhere on the *Firesprite's* bridge. He quickly surveyed the chaos.

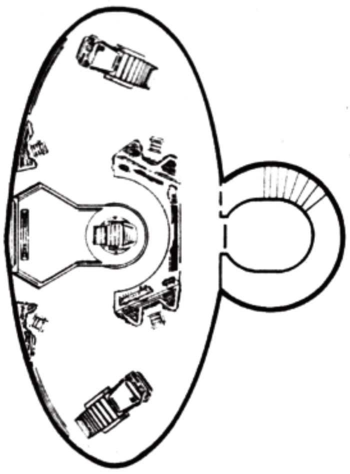
"Clear the bridge. Auxiliary Control, she's yours until we can get down there."

Lieutenant Sheevak called down to him from the upper level of the frigate's bridge. "Captain, the turbolift is fouled. Shall I attempt repair?"

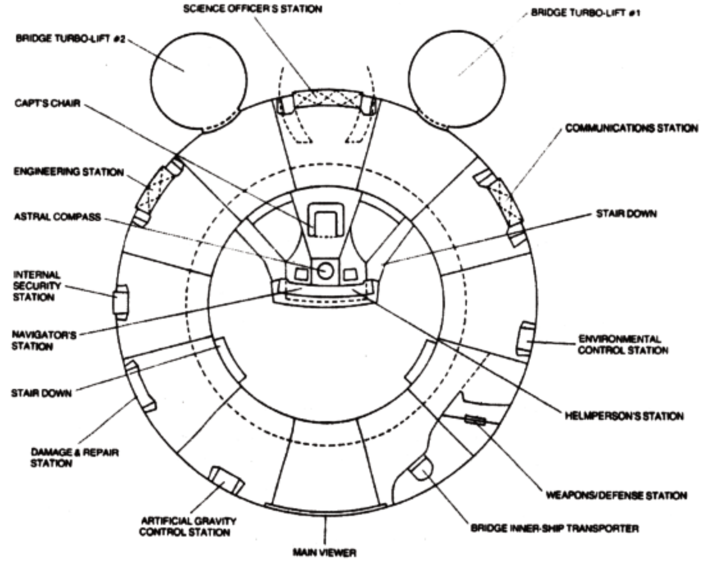
Stewart surveyed the mass of twisted metal. "Forget it, Lieutenant. Auxiliary Control, we're going to be awhile...."



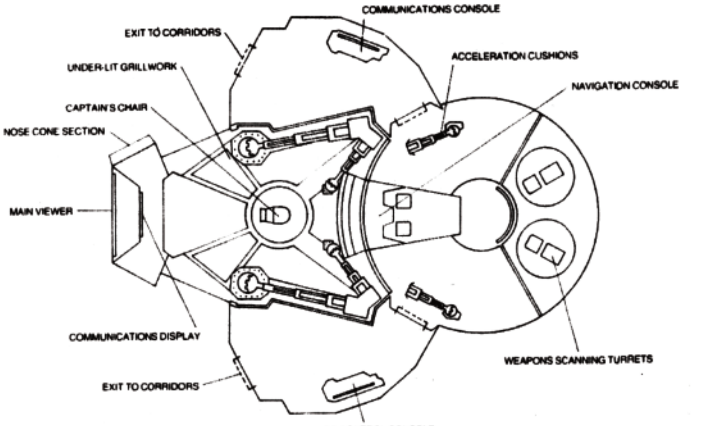
CONSTITUTION CLASS BRIDGE



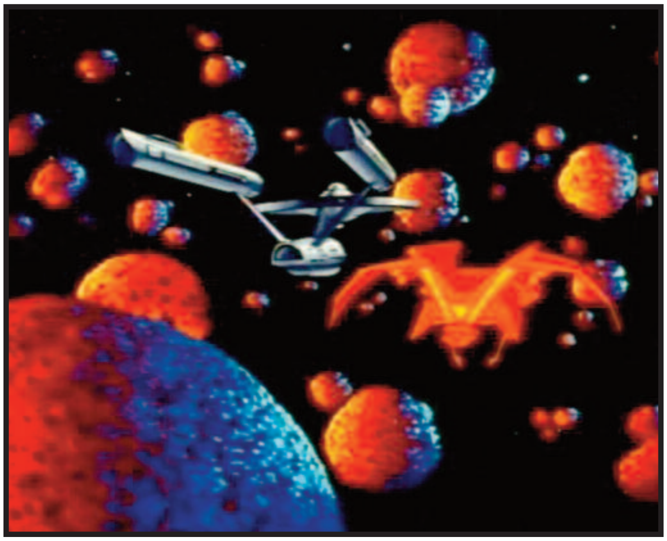
KLINGON D-7A BRIDGE



ENTERPRISE BRIDGE



KLINGON D-7M BRIDGE



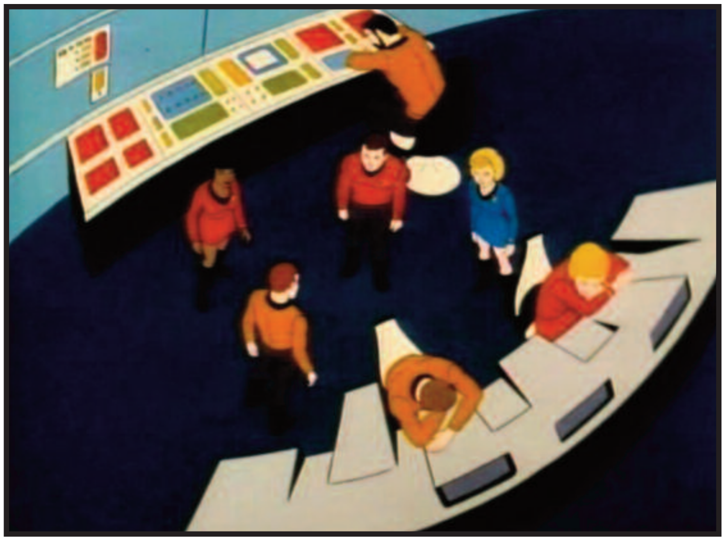
STARSHIP EXPLOSIONS

Ship explodes when superstructure point total drops below zero IF saving roll (1D10) is equal to or less than number of damage points taken beyond zero point on superstructure. (Self-destruct also possible.)

Damage taken by nearby vessels varies according to range between exploding ship and target ship.

Damage is taken off the hexside facing the exploding ship, as with a normal attack.

RANGE	AMOUNT OF DAMAGE
1 hex	full amount of all remaining engine points of exploding ship
2 hexes	1/2 remaining engine points
3 hexes	1/4 remaining engine points
4 hexes	1/8 remaining engine points
5 hexes	1/16 remaining engine points
6 hexes	1/32 remaining engine points
7-10 hexes	1 point of damage



SHIP COMBAT SAVING ROLLS

CAPTAIN

1) Starship Combat Tactics/Strategy, at beginning of turn—no roll is made, but skill of opposing commanders commanders compared to determine initiative.

ENGINEER

Only one roll may be made per turn - player's choice

1) *Warp Drive Technology*, at beginning of turn - success gains 1 extra pt. of power to be applied to TOTAL POWER AVAILABLE track. (2 pts. if roll is 01-05...)

2) *Starship Engineering (general)*, at beginning of turn - success reduces stress/damage to one engine by one point. (2 pts. on one engine or 1 pt. each on two engines. if roll is 01-05...)

3) *Warp Drive Technology*, at beginning of turn - success allows helm to change overall warp speed by 2 steps instead of 1 in one turn.

NAVIGATOR

1) *Deflector Shield Technology*, at beginning of turn - success allows helm to change overall warp speed by 2 steps instead of 1 in one turn.

HELMSMAN

1) *Starship Helm Operation*, any time needed - success allows stress chart rolls to be made one step higher on chart than normal.

HELMSMAN (Early Star Fleet, most other races) *or* WEAPONS OFFICER (Late Star Fleet, Klingon)

1) *Ship's Weaponry Technology*, made when firing (may roll twice/turn) - success gains a -1 on "to hit" rolls of weaponry.

SCIENCE OFFICER

1) *Ship's Sensors*, at beginning of turn - success gains sensor lock for information scan. (Lock not necessary for weapons fire, but no weapons fire possible if sensors inoperative.)

COMMUNICATIONS OFFICER

1) *Starship Communications Procedures*, anytime - success allows special functions to be performed (unscrambling special codes, penetrating interference, etc.).

ALL BRIDGE PERSONNEL

1) *DEX attribute*, when receiving a "bridge personnel out" combat result - success allows continued function of this station next turn. (If roll fails, all settings of this panel remain the same next turn - no modification allowed.)

FIRING CHART

Range	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Range
1	1-8	1-5	1-10	1-10	1-8	1-10	1-7	1-10	1-8	1-10	1-8	1-10	1-10	1-10	1-10	1-8	1-10	1-10	1-10	1-10	1-10	1-9	1-10	1-10	1-10	1
2	1-6	1-5	1-8	1-9	1-7	1-9	1-7	1-9	1-8	1-10	1-8	1-10	1-9	1-10	1-10	1-8	1-10	1-10	1-10	1-10	1-10	1-9	1-10	1-10	1-10	2
3	1-4	1-4	1-6	1-7	1-6	1-7	1-6	1-8	1-7	1-9	1-7	1-9	1-8	1-9	1-9	1-8	1-10	1-9	1-10	1-9	1-9	1-8	1-10	1-10	1-10	3
4	1-2	1-4	1-4	1-5	1-5	1-6	1-6	1-7	1-7	1-9	1-7	1-9	1-7	1-9	1-9	1-7	1-9	1-9	1-9	1-9	1-9	1-8	1-10	1-9	1-9	4
5		1-3	1-2	1-3	1-4	1-4	1-5	1-6	1-6	1-8	1-6	1-8	1-7	1-8	1-8	1-7	1-9	1-8	1-9	1-8	1-8	1-8	1-9	1-9	1-9	5
6		1-3	1	1	1-3	1-3	1-5	1-5	1-6	1-8	1-6	1-7	1-7	1-8	1-8	1-7	1-8	1-8	1-8	1-8	1-8	1-7	1-9	1-9	1-9	6
7		1-2			1-2	1-2	1-4	1-4	1-5	1-6	1-5	1-6	1-6	1-7	1-7	1-6	1-8	1-7	1-8	1-7	1-7	1-7	1-8	1-8	1-8	7
8		1-2			1	1	1-3	1-3	1-5	1-4	1-5	1-5	1-6	1-6	1-6	1-6	1-7	1-7	1-7	1-7	1-7	1-7	1-8	1-8	1-8	8
9		1					1-2	1-2	1-4	1-2	1-4	1-4	1-5	1-5	1-5	1-6	1-6	1-6	1-7	1-6	1-6	1-6	1-7	1-7	1-8	9
10		1					1	1	1-3	1	1-4	1-3	1-5	1-4	1-5	1-5	1-5	1-6	1-6	1-6	1-6	1-6	1-7	1-7	1-7	10
11									1-2		1-3	1-2	1-4	1-3	1-4	1-5	1-4	1-5	1-6	1-5	1-5	1-6	1-6	1-6	1-7	11
12									1		1-3	1	1-3	1-2	1-3	1-4	1-3	1-5	1-5	1-5	1-5	1-5	1-6	1-6	1-7	12
13											1-2		1-2	1	1-2	1-4	1-2	1-4	1-4	1-4	1-4	1-5	1-5	1-5	1-6	13
14											1-2		1		1	1-3	1	1-3	1-3	1-4	1-4	1-5	1-5	1-5	1-6	14
15											1					1-3		1-2	1-2	1-3	1-3	1-4	1-4	1-4	1-5	15
16																1-2		1	1	1-3	1-3	1-4	1-4	1-4	1-5	16
17																1-2				1-2	1-2	1-3	1-3	1-3	1-4	17
18																1				1	1-2	1-3	1-3	1-3	1-4	18
19																					1	1-2	1-2	1-2	1-3	19
20																					1	1-2	1	1-2	1-3	20
21																						1		1	1-2	21
22																								1	1-2	22
23																									1	23
24																									1	24

–3 TO HIT MOVING CLOAKED SHIP –5 TO HIT STATIONARY CLOAKED SHIP –2 FIRER MAKES EMERGENCY HEADING CHANGE

MOVEMENT WITH THREE MOVMENT/FIRING PHASES

Movement Points Available	Movement Points Used Phase 1	Phase 2	Phase 3
1	None	1	None
2	1	None	1
3	1	1	1
4	1	2	1
5	2	1	2
6	2	2	2
7	2	3	2
8	3	2	3
9	3	3	3
10	3	4	3
11	4	3	4
12	4	4	4
13	4	5	4
14	5	4	5
15	5	5	5
16	5	6	5
17	6	5	6
18	6	6	6
19	6	7	6
20	7	6	7
21	7	7	7
22	7	8	7
23	8	7	8
24	8	8	8
25	8	9	8
26	9	8	9
27	9	9	9
28	9	10	9
29	10	9	10
30	10	10	10

BASIC GAME DAMAGE LOCATIONTABLE

Die Roll	Result
1	Deflector Shield
2	Weapon, Missile
3	Weapon, Beam
4	Engine
5	Engine
6	Engine
7	Superstructure
8	Superstructure
9	Superstructure
10	Sensors

FASA
CORPORATION

PLASMA DAMAGE TABLE

Range	RL-1	RL-2	RL-3
1	24/12	32/16	28/14
2	20/10	32/16	28/14
3	20/10	32/16	28/14
4	16/8	24/12	28/14
5	16/8	24/12	24/12
6	12/6	24/12	24/12
7	8/4	20/10	24/12
8	4/2	20/10	24/12
9	—	16/8	20/10
10	—	16/8	20/10
11	—	12/6	20/10
12	—	12/6	16/8
13	—	8/4	16/8
14	—	8/4	12/6
15	—	—	12/6

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BRIDGE HIT EFFECTS

BRIDGE PERSONNEL SHAKEN

Die Roll	Officer Affected
1-3	No Effect
4-6	Science Officer
7-9	Helmsman
10	Both Science Officer And Helmsman

SYSTEM SHAKEN

Die Roll	System Affected
1	Communications/Damage Control
2	Sensors
3	Shields
4	Helm
5	Weapons
6	Weapons
7	Reroll two times, divide roll by 2
8	Reroll three times, divide roll by 2
9	Reroll four times, divide roll by 2
10	No effect

TURN STRESS CHART

Chart Speed	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SUB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
W2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
W3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1
W4	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	2
W5	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	2	2	2
W6	-	-	-	-	-	1	1	1	1	1	1	1	2	2	2	2	2	3
W7	-	-	-	1	1	1	1	2	2	1	2	2	2	3	2	3	2	3
W8	-	1	1	1	2	1	2	2	3	2	2	3	3	4	2	3	3	4
W9	1	1	2	2	3	2	2	3	4	2	3	4	3	5	3	4	3	4
W10	2	2	3	2	4	2	3	3	5	3	3	5	4	6	3	4	4	5

Ship Assignment

U.S.S. N.C.C. -

Ship's History

Class:

COMBAT EFFICIENCY

D-

WDF

Specifications:

HULL DATA Entered Service
Qty. Constructed

SUPERSTRUCTURE Points
Damage Chart
Landing Capable
Length
Width
Height
Tonnage

EQUIPMENT
Control Computer
Subspace Transmitter
Emergency Battery Capacity
Tractor Beam Emitters
Tractor Capacitors

TRANSPORTERS
Standard 6-person
Emergency 22-person
Cargo

HANGAR BAY Sm/Md/Lg/Expansive
DOCKING RING
SHUTTLECRAFT

ENGINES AND POWER
Total Power Units
Manuever Point Ratio

WARP ENGINE TYPE
Power Units Available
Stress Charts
Cruising Speed
Emergency Speed

IMPULSE ENGINE TYPE
Power Units Available

WEAPONS AND SHIELDS
BEAM TYPE
Number
Firing Arc
Firing Chart
Max Power
Damage Mods

Missile TYPE
Number
Firing Arc
Firing Chart
Damage

Shield TYPE
Shield Point Ratio
Max Shield
Power/Side

PERSONNEL Crew
Officers
Enlisted
Passengers

CARGO Units
Tonnage

COMMUNICATIONS

Chief Communications DEX ___
ST Comm Op ___
ST Comm Tech ___

Casualties

1	2	3	4	5	6	7	8	9	0

Hundreds

1	2	3	4	5	6	7	8	9	0

Tens

1	2	3	4	5	6	7	8	9	0

Ones

+1	+2	+3	+4	+5	+6	+7	+8	+9	+10

Die Roll Modifications

SHIP COMBAT SAVING ROLL TABLE

Below is a list of all skill rolls normally used in ship combat. Four things are given: 1) Officer the roll is made by, 2) Name of the skill used, 3) When the roll can be made, and 4) the result of a successful roll.

CAPTAIN

1) STARSHIP COMBAT STRATEGY/TACTICS, beginning of turn, no roll is made but skill is compared to opponent's skill.

ENGINEER

Only one roll may be made per turn.

1) WARP DRIVE TECHNOLOGY, made at the beginning of the turn, success gains 1 extra ponit of power to be applied to total power available track (2 points if roll is 01-05).

2) STARSHIP ENGINEERING (GENERAL), made at the beginning of the turn, success reduces stress on one engine by one step (2 points on one engine or 1 point on each of two engines if the roll is 01-05).

3) WARP DRIVE TECHNOLOGY, made at the beginning of the turn, success allows helm to change overall warp speed by 2 steps instead of 1.

NAVIGATOR

1) DEFLECTOR SHIELD TECHNOLOGY, made at the beginning of the turn, success gains 2 more points of shielding to be used anywhere.

HELMSMAN

1) STARSHIP HELM OPERATION, made any time needed, success allows stress chart rolls to be made one row higher than normal.

2) SHIP'S WEAPONRY TECHNOLOGY, made when firing — may roll twice per turn, success gains a -1 on 'to hit' rolls of weaponry.

SCIENCE OFFICER

1) SHIP'S SENSOR SKILL, made at the beginning of the turn, success gains sensor lock.

COMMUNICATIONS OFFICER

1) STARSHIP COMMUNICATIONS PROCEDURES, may be made anytime, allows difficult tasks to be performed.

SCIENCE

DMGD 2	DMGD 1	OPER	LOCK

Sensors

Chief Sciences DEX ___
ST Sensors ___

Superstructure Damage

0	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40

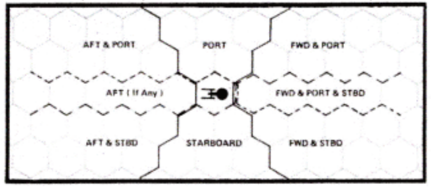
DAMAGE CHART A B C

Forward	STBD - Forward	Port-Forward
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10

AFT	STBD - Aft	Port-Aft
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10

Chief Helm DEX ___
ST Helm ___
ST Wpn Op ___ ST Wpns Tech ___

HELM



PHOTON TORPEDOES

TYPE/ARC	DMGD	UN ARM	ARM	TYPE/ARC	DMGD	UN ARM	ARM
TYPE/ARC	DMGD	UN ARM	ARM	TYPE/ARC	DMGD	UN ARM	ARM

TYPE	DMGD	UN ARM	1	2	3	4	5
	PHASER ARC		6	7	8	9	10

TYPE	DMGD	UN ARM	1	2	3	4	5
	PHASER ARC		6	7	8	9	10

TYPE	DMGD	UN ARM	1	2	3	4	5
	PHASER ARC		6	7	8	9	10

TYPE	DMGD	UN ARM	1	2	3	4	5
	PHASER ARC		6	7	8	9	10

TYPE	DMGD	UN ARM	1	2	3	4	5
	PHASER ARC		6	7	8	9	10

TYPE	DMGD	UN ARM	1	2	3	4	5
	PHASER ARC		6	7	8	9	10

TURN STRESS CHART

Speed	Engine Stress	Super Stress
Sub		
W1		
W2		
W3		
W4		
W5		
W6		
W7		
W8		

TORPEDO FIRING CHART

Range	To-Hit	DMG
1		
2		
3		
4		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

PHASER FIRING CHART

Range	To-Hit	DMG+
1		
2		
3		
4		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

Movement Points Available

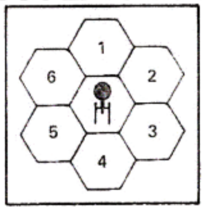
0	8
1	9
2	10
3	11
4	12
5	13
6	14
7	15

Current Speed

SUB-LIGHT SPACE NORMAL	
W1	W6
W2	W7
W3	W8
W4	W9
W5	W10

Chief Navigator DEX ___
ST Nav ___
Def Shield Tech ___

NAVIGATOR



Deflectors

1	Forward	2	STBD Forward	3	STBD Aft	4	Aft	5	Port Aft	6	Port Forward
DMGD		DMGD		DMGD		DMGD		DMGD		DMGD	
0	17	0	17	0	17	0	17	0	17	0	17
1	18	1	18	1	18	1	18	1	18	1	18
2	19	2	19	2	19	2	19	2	19	2	19
3	20	3	20	3	20	3	20	3	20	3	20
4	21	4	21	4	21	4	21	4	21	4	21
5	22	5	22	5	22	5	22	5	22	5	22
6	23	6	23	6	23	6	23	6	23	6	23
7	24	7	24	7	24	7	24	7	24	7	24
8	25	8	25	8	25	8	25	8	25	8	25
9	26	9	26	9	26	9	26	9	26	9	26
10	27	10	27	10	27	10	27	10	27	10	27
11	28	11	28	11	28	11	28	11	28	11	28
12	29	12	29	12	29	12	29	12	29	12	29
13	30	13	30	13	30	13	30	13	30	13	30
14	31	14	31	14	31	14	31	14	31	14	31
15	32	15	32	15	32	15	32	15	32	15	32
16	33	16	33	16	33	16	33	16	33	16	33

Tractor Beam

0	17	DMGD
1	18	OPER
2	19	
3	20	
4	21	
5	22	
6	23	
7	24	
8	25	
9	26	
10	27	
11	28	
12	29	
13	30	
14	31	
15	32	
16	33	

ENGINEERING

Chief Engineer DEX ___
Current Location: Bridge / Engineering
ST ENG ___
Warp Drive Tech ___

Port Warp Engine

0	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40

Impulse Engine

0	1	2	3	4
5	6	7	8	9
10	11	12	13	14
15	16	17	18	19
20	21	22	23	24

Starboard Warp Engine

0	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40

Total Power Available

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75

Power to Movement

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60

Power to Shields

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60

Power to Weapons

0	1	2	3	4	5	6	7	8	9	10	1	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

DETAILED DAMAGE TABLES

DAMAGE CHART A

DIE ROLL	SHIELD 1	SHIELD 2	SHIELD 3	SHIELD 4	SHIELD 5	SHIELD 6
1	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR
2	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON
3	PORT WARP ENGINE (x1/2)	MISSILE WEAPON	STARBOARD WARP ENGINE (x1/2)	STARBOARD WARP ENGINE (x1/2)	MISSILE WEAPON	PORT WARP ENGINE (x1/2)
4	PORT WARP ENGINE (x1/2)	PORT WARP ENGINE (x1/2)	STARBOARD WARP ENGINE (x1/2)	STARBOARD WARP ENGINE (x1/2)	SUPERSTRUCTURE/C (x1/2)	PORT WARP ENGINE
5	PORT WARP ENGINE	PORT WARP ENGINE	STARBOARD WARP ENGINE	STARBOARD WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)	PORT WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)
6	PORT WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)	STARBOARD WARP ENGINE (x1/2)	STARBOARD WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)	IMPULSE (x1/2)	IMPULSE	IMPULSE (x1/2)
7	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C
8	SUPERSTRUCTURE/C (x1/2)	STARBOARD WARP ENGINE	SUPERSTRUCTURE/C(x1/2)	SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)
9	SENSORS	SENSORS	SENSORS	SUPERSTRUCTURE/C (x1/2)	WARP ENGINE	SUPERSTRUCTURE/C (x1/2)
0	BRIDGE 2C	BRIDGE 2C	BRIDGE 2C	SUPERSTRUCTURE/C (x1/2)	ENGINEERING/C	SUPERSTRUCTURE/C (x1/2)

DAMAGE CHART B

DIE ROLL	SHIELD 1	SHIELD 2	SHIELD 3	SHIELD 4	SHIELD 5	SHIELD 6
1	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR
2	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON
3	PORT WARP ENGINE (x1/2)	MISSILE WEAPON	STARBOARD WARP ENGINE (x1/2)	STARBOARD WARP ENGINE (x1/2)	MISSILE WEAPON	PORT WARP ENGINE (x1/2)
4	PORT WARP ENGINE (x1/2)	SUPERSTRUCTURE/C (x1/2)	STARBOARD WARP ENGINE (x1/2)	STARBOARD WARP ENGINE (x1/2)	PORT WARP ENGINE	PORT WARP ENGINE (x1/2)
5	PORT WARP ENGINE	SUPERSTRUCTURE/C (x1/2)	STARBOARD WARP ENGINE	STARBOARD WARP ENGINE	STARBOARD WARP ENGINE	PORT WARP ENGINE
6	PORT WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)	STARBOARD WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)	IMPULSE (x1/2)	IMPULSE	IMPULSE (x1/2)
7	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C
8	SUPERSTRUCTURE/C (x1/2)	WARP ENGINE	SUPERSTRUCTURE/C(x1/2)	SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)
9	SENSORS	SENSORS	SENSORS	SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)
0	BRIDGE 2C	BRIDGE 2C	BRIDGE 2C	STARBOARD WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)	ENGINEERING/C	PORT WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)

DAMAGE CHART C

DIE ROLL	SHIELD 1	SHIELD 2	SHIELD 3	SHIELD 4	SHIELD 5	SHIELD 6
1	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR	SHIELD GENERATOR
2	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON	BEAM WEAPON
3	PORT WARP ENGINE (x1/2)	MISSILE WEAPON	STARBOARD WARP ENGINE (x1/2)	STARBOARD WARP ENGINE (x1/2)	MISSILE WEAPON	PORT WARP ENGINE (x1/2)
4	PORT WARP ENGINE	SUPERSTRUCTURE/C (x1/2)	STARBOARD WARP ENGINE	STARBOARD WARP ENGINE (x1/2)	PORT WARP ENGINE (x1/2)	PORT WARP ENGINE (x1/2)
5	SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)	STARBOARD WARP ENGINE	PORT WARP ENGINE	PORT WARP ENGINE
6	SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)	SUPERSTRUCTURE/C (x1/2)	IMPULSE (x1/2)	IMPULSE	IMPULSE (x1/2)
7	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C	SUPERSTRUCTURE/2C
8	PORT WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)	WARP ENGINE	STARBOARD WARP ENGINE/ SUPERSTRUCTURE/C(x1/2)	SUPERSTRUCTURE/C (x1/2)	STARBOARD WARP ENGINE (x1/2)	SUPERSTRUCTURE/C (x1/2)
9	SENSORS	SENSORS	SENSORS	SUPERSTRUCTURE/C (x1/2)	STARBOARD WARP ENGINE	SUPERSTRUCTURE/C (x1/2)
0	BRIDGE 2C	BRIDGE 2C	BRIDGE 2C	STARBOARD WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)	ENGINEERING/C	PORT WARP ENGINE/ SUPERSTRUCTURE/C (x1/2)

CREW CASUALTIES

Superstructure Strength	*% Casualties Per* Superstructure Point Damaged
1	100
2	50
3	30
4	25
5	20
6	18
7-8	14
9-11	10
12-14	8
15-19	6
20-34	4
36-50	2
51+	1

DEFENSE OUTPOST

Die Roll	*Damage Result*
1	SHIELD GENERATOR
2	BEAM WEAPON OR MISSILE WEAPON
3	MATTER/ANTI-MATTER GENERATOR (x1/2)
4	IMPULSE POWER GENERATOR (x1/2)
5	ENGINEERING
6	SUPERSTRUCTURE/C (x1/2)
7	SUPERSTRUCTURE (2C)
8	SUPERSTRUCTURE/ MATTER/ANTI-MATTER GENERATOR/C (x1/2)
9	SENSORS
0	BRIDGE (2C)

ENGINEERING DAMAGE TABLE

Die Roll	*Damage Result*
1 – 2	SHIELD POWER GRID DOWN
3 – 4	WEAPONRYPOWER GRID DOWN
5 – 6	MANEUVER POWER GRID DOWN
7	SHIELD POWER GRID AND WEAPONRY POWER GRID DOWN
8	SHIELD POWER GRID AND MANEUVER POWER GRID DOWN
9	WEAPONRY POWER GRID AND MANEUVER POWER GRID DOWN
10	ALL POWER SYSTEMS DOWN

BANKED WEAPPONS DAMAGE TABLE

Damage	2/Bank Die Roll	3/Bank Die Roll	
	1WPN	*1WPN*	*2WPN*
1-5	1-8	1-4	5-8
6-10	1-6	1-3	4-6
11-15	1-4	1-2	3-4
16-20	1-2	1	2
21+	AUTOMATIC	AUTOMATIC	1

C = Crew Casualties

PERMISSION GRANTED TO PHOTOCOPY FOR PERSONAL USE

MASTER CONTROL PANEL

Race ____________
Vessel Class ____________
Vessel Name ____________
D ____________
WDF ____________

Captain's Name ____________
Captain's Skill Rating ____________
Crew Efficiency Rating ____________

ENGINEERING DISPLAY

IMPULSE ENGINE POWER TRACK

Type ____________

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

WARP ENGINE PORT POWER TRACK

Type ____________

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

WARP ENGINE STARBOARD POWER TRACK

Type ____________

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

	TURN #1	#2	#3	#4	#5	#6	#7	# 8	#9	#10	#11	#12
Total Power Units Available												
Power To Movement Movement Point Ratio ___/___												
Power To Shields Shield Point Ratio ___/___												
Power To Weapons												
Power to Cloak Points To Power ___												

HELM DISPLAY

STRESS CHARTS

ENGINE: ________ SUPERSTRUCTURE: ________ WARP SPEED ________

	TURN #1	#2	#3	#4	#5	#6	#7	# 8	#9	#10	#11	#12
MOVEMENT POINTS												
SENSORS STATUS	D O L	D O L	D O L	D O L	D O L	D O L	D O L	D O L	D O L	D O L	D O L	D O L
CLOAK STATUS	ON OFF	ON OFF	ON OFF	ON OFF	ON OFF	ON OFF	ON OFF	ON OFF	ON OFF	ON OFF	ON OFF	ON OFF

WEAPONS DISPLAY

Beam Type ____________
Firing Chart ____________
Maximum Power ____________
Damage Modifiers +3(–) +2(–) +1(–)

Missile Type ____________
Firing Chart ____________
Power To Arm ____________
Damage ____________

Beam Type ____________
Firing Chart ____________
Maximum Power ____________
Damage Modifiers +3(–) +2(–) +1(–)

Missile Type ____________
Firing Chart ____________
Power To Arm ____________
Damage ____________

		TURN #1	#2	#3	#4	#5	#6	#7	# 8	#9	#10	#11	#12
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
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Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												
Type ____________ ☐OPER ☐DMGD ☐REPD ☐INOP	Firing Arc P F A S												

DAMAGE CONTROL DISPLAY

SHIELDS

SHIELD TYPE __________ SHIELD POINT RATIO ______/______ MAXIMUM SHIELD POWER ___________

SHIELD POINTS AVAILABLE

#1	#2	#3	#4		#6				#10	#11	#12

TURN #1

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #2

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #3

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #4

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #5

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #6

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #7

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #8

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #9

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #10

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #11

	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

TURN #12

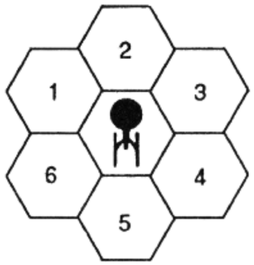
	FORWARD					AFT		
	SHIELD #1	#2	#3		#4	#5	#6	
1				1				1
2				2				2
3				3				3
4				4				4
5				5				5
6				6				6
7				7				7
8				8				8
9				9				9
10				10				10
11				11				11
12				12				12
13				13				13
14				14				14
15				15				15
16				16				16
17				17				17
18				18				18
19				19				19
20				20				20

DAMAGE CHART **A B C**

DAMAGE POINT RECORD

TURN #1 ____________ TURN #5 ____________ TURN # 9 ____________
#2 ____________ #6 ____________ #10 ____________
#3 ____________ #7 ____________ #11 ____________
#4 ____________ #8 ____________ #12 ____________

SHIELDS DIAGRAM



SYSTEMS REPAIR STATUS

	1ST HIT	2ND HIT	3RD HIT	4TH HIT	5TH HIT
SENSORS	☐ 1-8	☐ 1-6	☐ 1-4	☐ 1-2	☐ OUT
SHIELD #1	☐ 1-8	☐ 1-6	☐ 1-4	☐ 1-2	☐ OUT
#2	☐ 1-8	☐ 1-6	☐ 1-4	☐ 1-2	☐ OUT
#3	☐ 1-8	☐ 1-6	☐ 1-4	☐ 1-2	☐ OUT
#4	☐ 1-8	☐ 1-6	☐ 1-4	☐ 1-2	☐ OUT
#5	☐ 1-8	☐ 1-6	☐ 1-4	☐ 1-2	☐ OUT
#6	☐ 1-8	☐ 1-6	☐ 1-4	☐ 1-2	☐ OUT
ENGINEERING GRIDS					
SHIELDS	☐ 1-8	☐ 1-6	☐ 1-4	☐ 1-2	☐ OUT
WEAPONS	☐ 1-8	☐ 1-6	☐ 1-4	☐ 1-2	☐ OUT
MANEUVER	☐ 1-8	☐ 1-6	☐ 1-4	☐ 1-2	☐ OUT

SUPERSTRUCTURE DAMAGE TRACK

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60

CASUALTY MODIFIER TRACK

CREW __________

0–19% 0	20–39% –1 –10%	40–59% –2 –20%	60–69% –5 –50%	70 % + NO FIRING

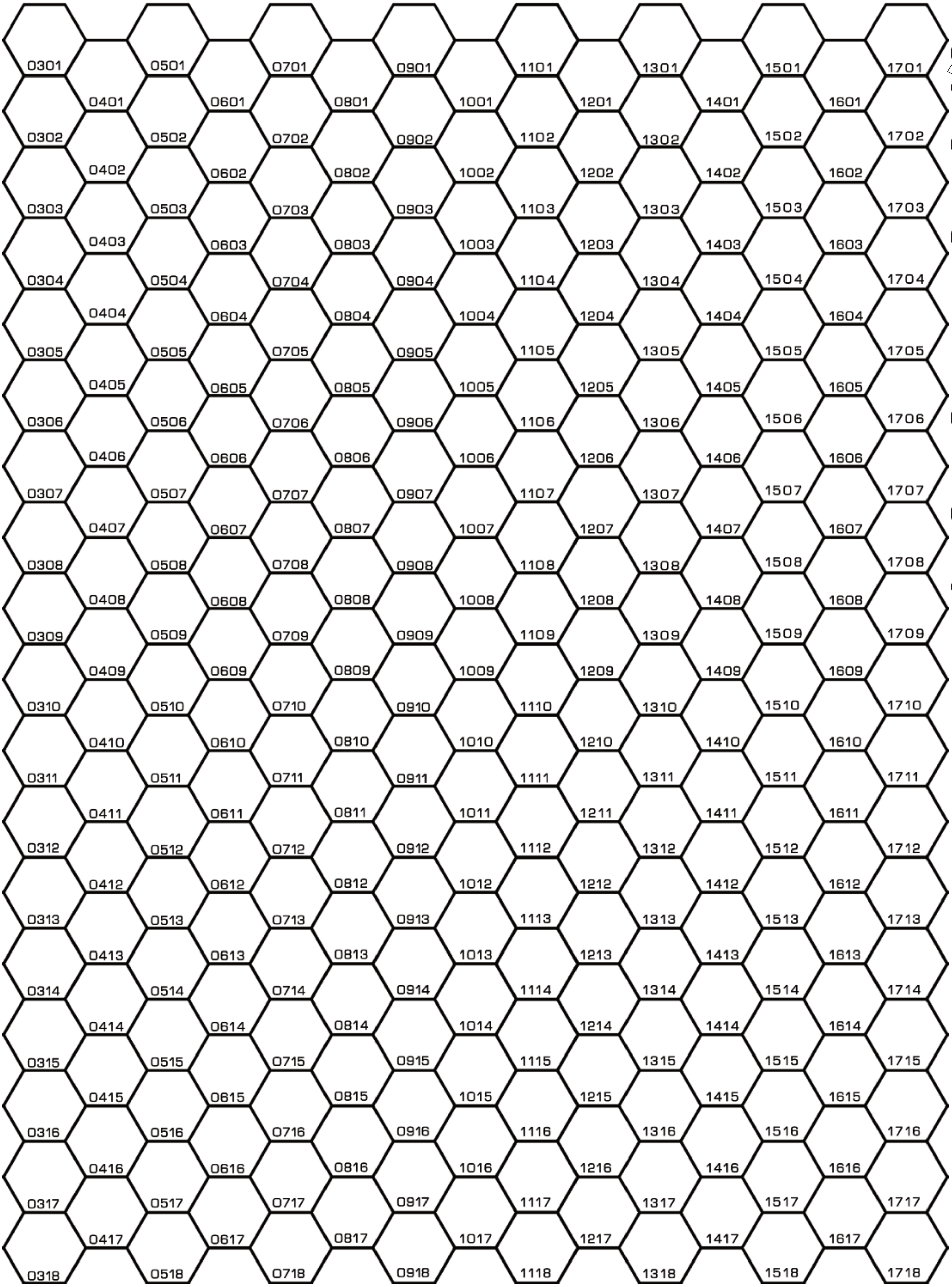
PERCENT CASUALTIES TRACK

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

FASA CORPORATION

PERMISSION GRANTED TO PHOTOCOPY FOR PERSONAL USE

Quick Skirmish Grid



courtesy, Jack Photon.space

FASA-RPG Jack Photon's 4.0th Fantaversary Revision HOUSE RULES

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Jack Photon's 3rd Edition Framework, ©2022
Jack Photon's 4.0th Fantaversary Revision, ©2023
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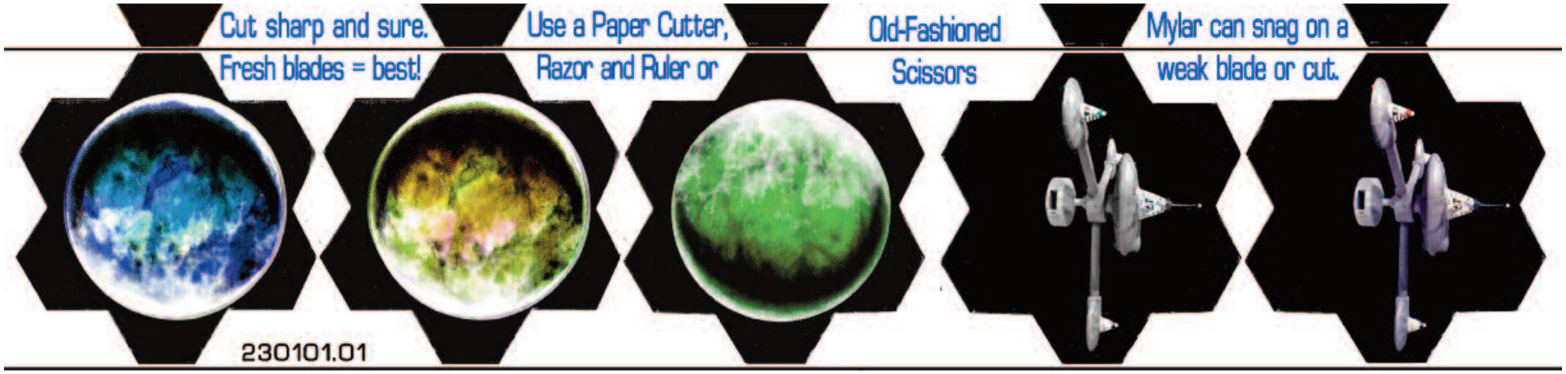
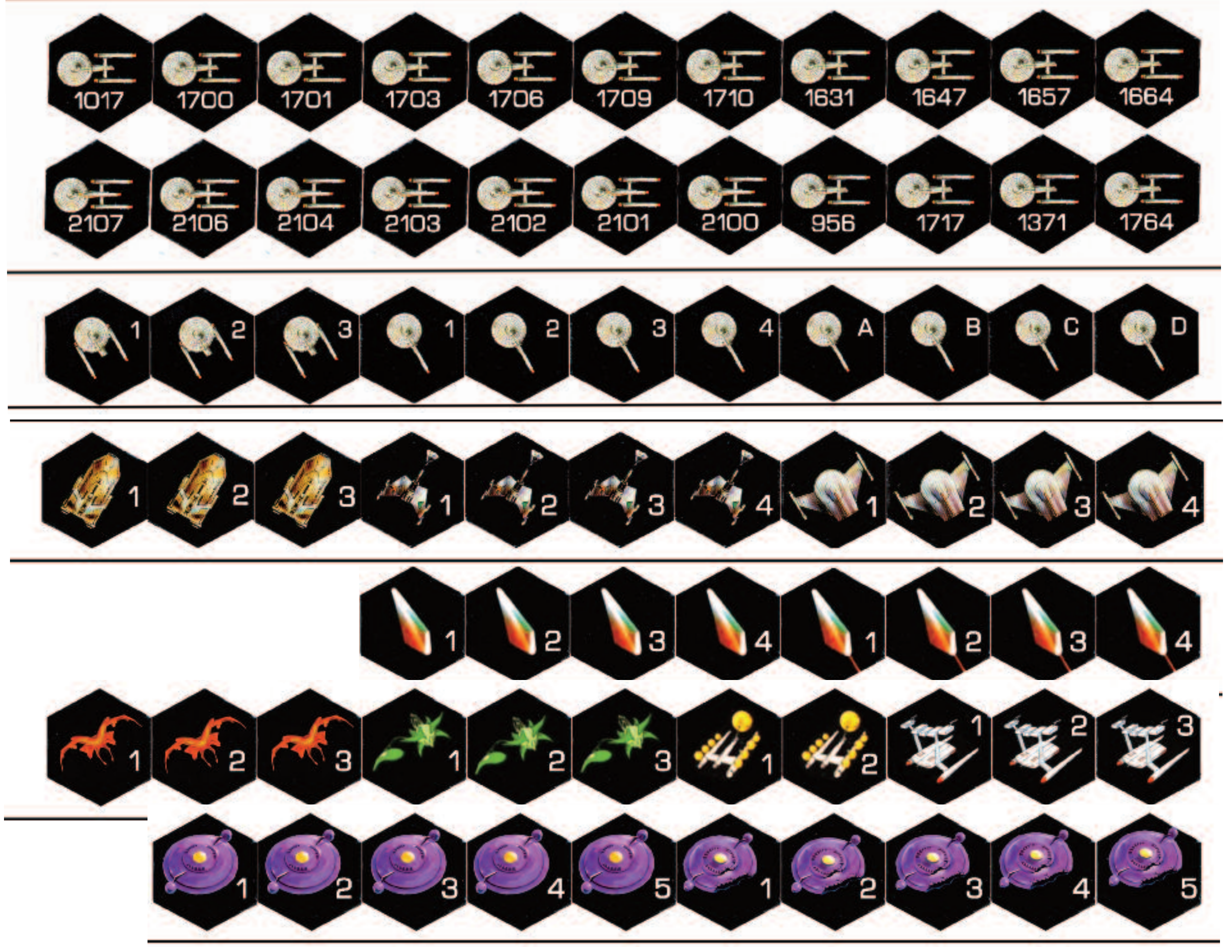
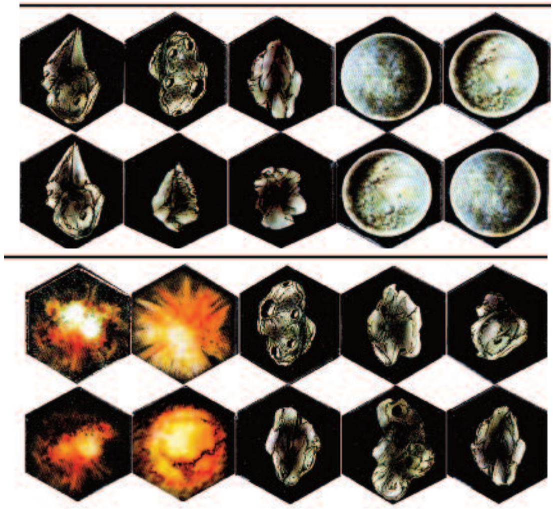
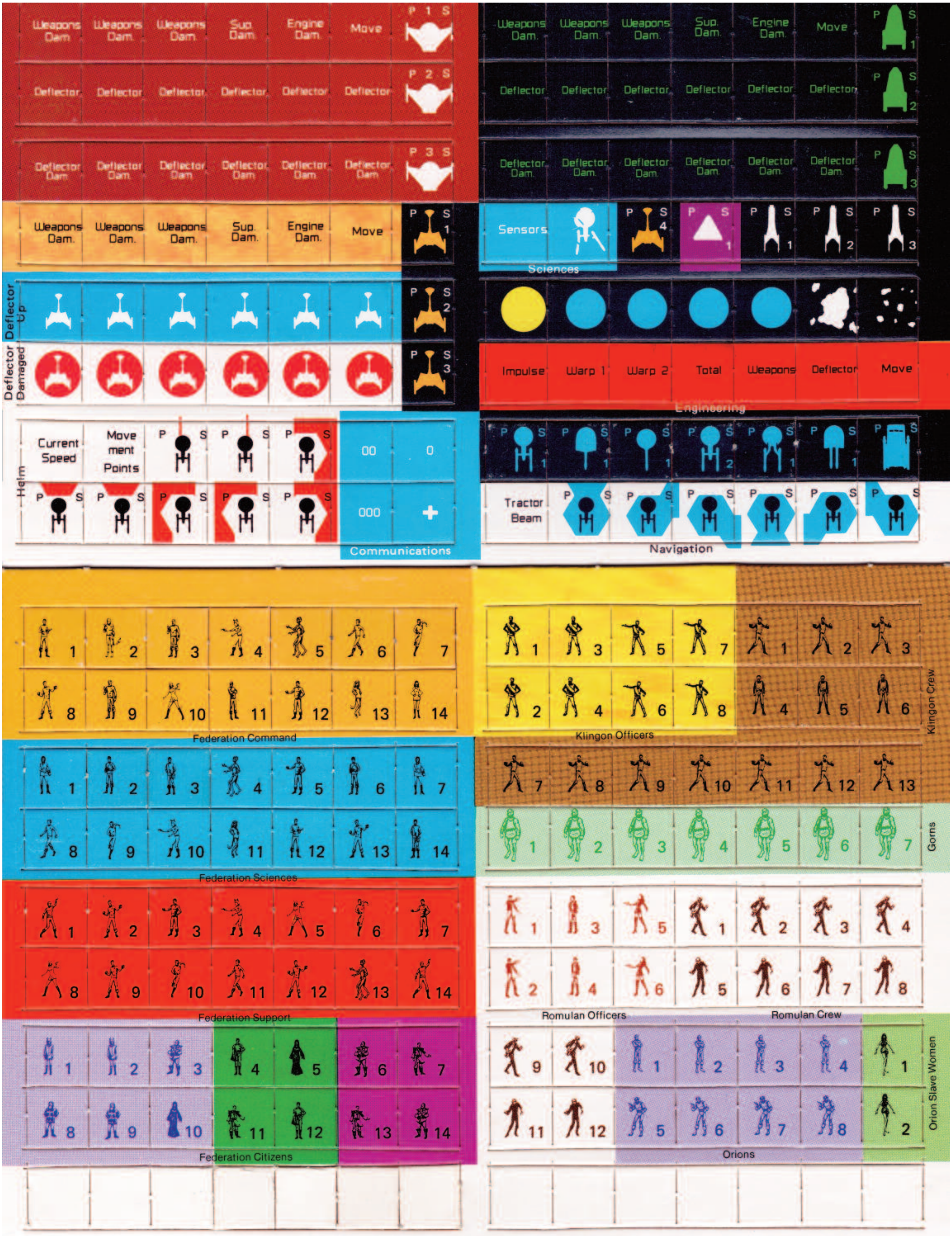


Cut sharp and sure. Fresh blades = best! Use a Paper Cutter, Razor and Ruler or Old-Fashioned Scissors. Mylar can snag on a weak blade or cut.

230101.01

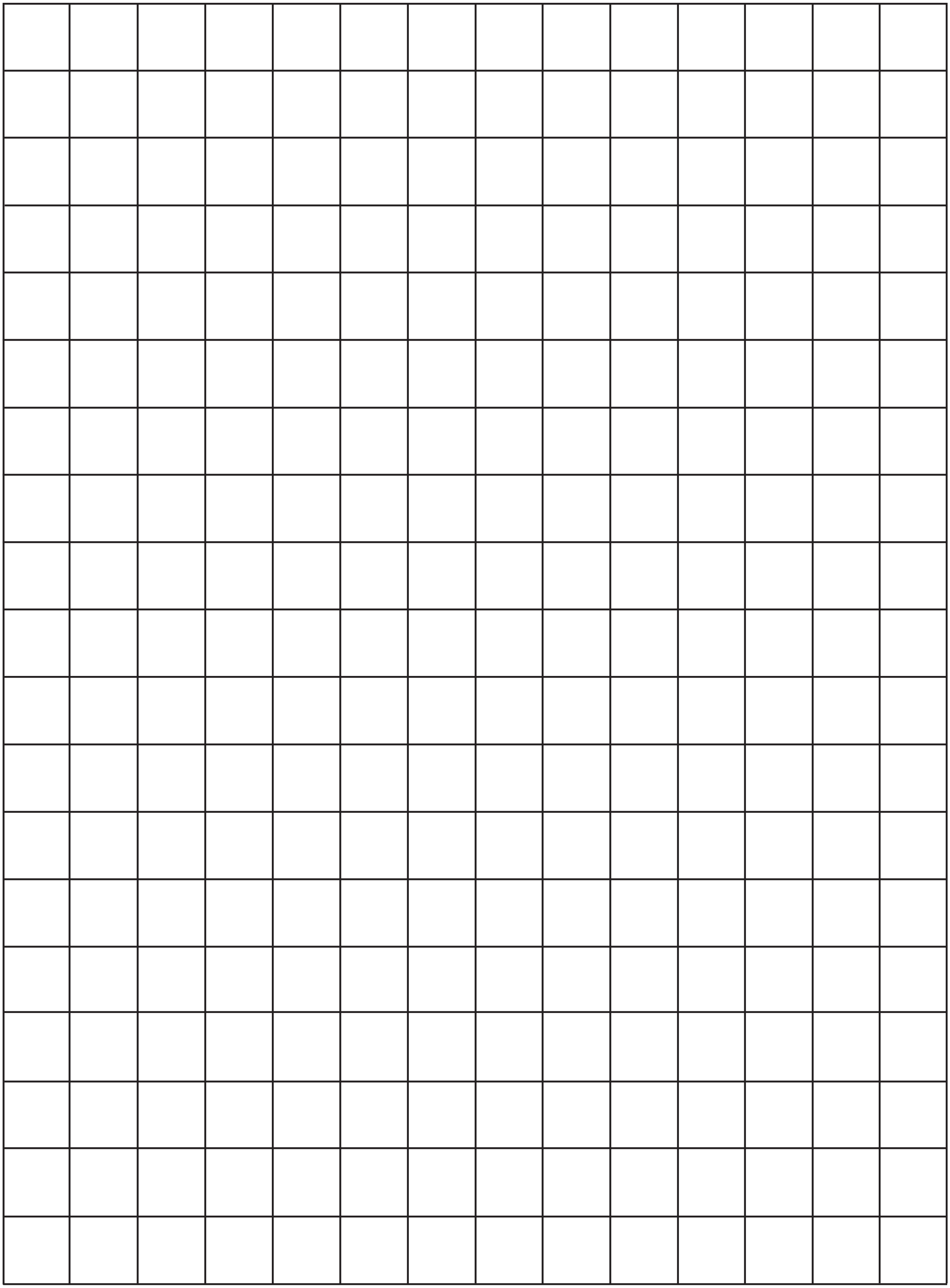





Weapons Dam.
Weapons Dam.
Weapons Dam.
Sup. Dam.
Engine Dam.
Move
P 1 S
Deflector
P 2 S
Deflector Dam.
P 3 S
Weapons Dam.
Sup. Dam.
Engine Dam.
Move
P S 1
P S 2
P S 3
Deflector Up
Deflector Damaged
Current Speed
Movement Points
P S
Helm
00
0
000
+
Communications
Sensors
Sciences
P S 4
P S 1
P S 2
P S 3
Impulse
Warp 1
Warp 2
Total
Weapons
Deflector
Move
Engineering
Tractor Beam
Navigation
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Federation Command
Federation Sciences
Federation Support
Federation Citizens
Klingon Officers
Klingon Crew
Gorns
Romulan Officers
Romulan Crew
Orions
Orion Slave Women

Quick Skirmish Grid

courtesy, Jack Photon.space



Gamemaster Hints and Suggestions

If you have played role-playing games before, you will soon discover that gamemastering a session of **STAR TREK: The Role-Playing Game** is more challenging (but hopefully more rewarding) than games you may have run before. This is largely because the STAR TREK universe has much internal detail. Gamemasters have a lot of leeway, but to remain true to STAR TREK, they must keep in mind some basic assumptions about the universe, the player characters, and their responsibilities to Star Fleet.

Perhaps the most important decision you will make as a gamemaster comes right at the beginning. You (along with the players) must decide what type of crew the players will belong to and what positions they will hold. You may start out playing the crew of the U.S.S. Enterprise, but later you will discover that the most fun comes from creating all-new characters to serve on a different Star Fleet vessel. After all, play involving the U.S.S. Enterprise requires players to act according to the personalities and capabilities of the established series characters. This is fun, but for a long campaign, it is even more fun to develop personalities from scratch.

One possibility is to make the players junior officers aboard the Enterprise. With this option, characters can be built from scratch. Junior officers get a lot of landing party duty, which gets players into the action. There are some limitations involved here, as well. If the players get into trouble, it is all too easy to let the established series characters bail them out. After a while, this can become boring. Still, playing a first-contact or exploratory team from the Enterprise can be very exciting for a number of scenarios, allowing the players to interact with their favorite STAR TREK characters without becoming tied down by them. (An excellent example of how such a team works can be found in the STAR TREK novel *The Galactic Whirlpool* by David Gerrold. Gerrold's Enterprise contact team would translate well into this game).

Perhaps the most enjoyable set-up for a continuing campaign is when player characters are assigned to a different ship altogether. There are a number of other starships of the Constitution class. Each has about the same layout and capabilities of the U.S.S. Enterprise, though there are some differences the Gamemaster and players can create. But with a different ship of the same class, the characters can hold down any set of positions and develop their characters and the histories of those characters as they wish. Of course, the players' ship may cross paths with the Enterprise from time to time. The officers of both ships may even be acquainted. And in this new STAR TREK universe you are creating, some of the crew of the players' ship may even have been transferred from the U.S.S. Enterprise itself!

Another interesting basis for a campaign is the crew of a small ship, perhaps an Explorer class courier/transport. Such a ship, with a crew of 9, provides a marvelous way for gamemaster and players to have the best of both worlds. A small group of players can be in command, operating along the fringes of the Federation with some say in where they go and what they do. Even so, the crew is small enough that players get a lot of landing party duty as well. An Explorer class ship operating as a scout vessel makes for a very lively campaign background.

Once the background for the campaign is decided on, the players should start creating characters to fill the various jobs decided on by the gamemaster. Gamemasters should be guided by the players' wishes, their personalities, and their strengths and weaknesses as game players in choosing jobs for the players.

A person who is not a very strong decision-maker should not be made captain, unless doing so is an attempt to get them out of their shell. (The designers have seen even the shyest and most passive players perk right up and become dynamic leaders when given their own ships. Sometimes. Other times, shy people hate command positions. Go by the desires of the player as much as possible).

Style of play is all important. Gamers with itchy trigger fingers will most likely be unhappy as medical officers, but make good security specialists. Cerebral types make excellent science specialists, and gadgetry fans like engineering. Note that these are just simple guidelines! Treat your players as individuals and let them get into positions they want as much as possible!

When placing players in job categories, also bear in mind that you want to get everyone involved as much as possible. Ship's historian sounds like an interesting position, but is called for in very few adventures, so this post would likely be best filled by a non-player character. If there is dissention about who should be captain, perhaps the best solution is to have a non-player captain! This will also give the gamemaster a bit more control over the situation.

The gamemaster must guard against the tendency to overplay his non-player personnel, thus leaving the players with little to do. Role-play the non-players in a colorful, realistic manner, but let the player characters take the lead and set the pace of play as much as possible.

Encourage players to make their characters as three-dimensional as possible by giving them little personality quirks and special interests and hobbies. Look at the crew of the Enterprise for examples. Kirk has an interest in American history. Scotty disdains shore leave in favor of reading technical journals. Dr. McCoy is fond of Saurian Brandy, dancing girls, and a good time. Sulu practices fencing and botany. Nurse Chapel is in love with Mr. Spock, but can't do anything about it. Nor can Spock, who can't return her feelings because he represses all emotion. Characterization, so important to a writer, is also important to a role-playing gamer. Besides, these little character traits can help you, as gamemaster, come up with ideas for scenarios.

Quite often, the players will want to play themselves, as they might have been had they lived in the fictional STAR TREK universe. Sometimes, these are the best campaigns of all! The character's personalities, interests, etc. are largely the player's own. When doing this, you may wish to suspend the character creation rules a bit and help the players draw up characters that match their own physical capabilities. Be prepared to stretch a point here, as players would rather play more-or-less idealized versions of themselves that possess their strengths, but play down their weaknesses. After all this game is played for fun. Don't saddle someone with a character that makes the player unhappy just for the sake of making a point.

Now you have a campaign background, and well-rounded characters to fill the jobs on the ship you selected. Your next job as a gamemaster is to develop some adventure situations for your players. The game material in this box has some starting points for adventures, but you soon will want to create your own. Here are some suggestions to get you started:

FIRST SURVEY: The ship is assigned to run the first survey of a newly-discovered class "M" world. Up until now, the only visitor here was a survey ship that made some sensor readings from orbit and departed. You must beam down a landing party and gather data so that Star Fleet Command can decide if the planet is suitable for colonization, mining, agriculture, or other uses. In addition, you must watch for any signs of intelligent inhabitants. If any are found, you must decide if they are primitive (in which case they must be approached about establishing diplomatic relations with the Federation).

Planets of this sort may or may not have intelligent inhabitants, but they will certainly have plants and/or animals that are unknown to the Federation, or at least unfamiliar to the players. There may be a source of some rare mineral or important biological material to be found. It is also possible in certain parts of the galaxy that Klingon survey parties may also be interested in this world, particularly if it is strategically located near important Federation trade or population centers.

DIPLOMATIC COURIER: The ship is dispatched to pick up a Federation ambassador and transport her/him to an important conference. The conference may be with officials of a planetary government considering signing trade and/or mining agreements with the Federation, or with two warring independent powers where the Federation is acting as an intermediary. In either case, there may be other powers interested in seeing that the ambassador does not arrive, or that his/her mission does not succeed.

MEDICAL EMERGENCY: A nearby planet has reported a medical emergency (outbreak of disease, biological attack, ecological disaster, natural disaster), and only your ship is close enough to bring aid. The medical staff will be kept busy aiding the worst casualties and searching for new techniques and treatments. The other departments may have their hands full as well, especially if the emergency situation proves to be planned rather than accidental.

DISTRESS CALL: The communications officer picks up a distress call, perhaps from a damaged ship in space, perhaps from a planet's surface. The details of the emergency may not be known in full when the ship arrives to help. The cause of the problem may still be nearby, ready to cause trouble again. It's also possible that the whole thing is a hoax to draw the ship into a trap . . .

ALIEN DERELICT: A drifting ship is detected by sensors. Upon investigation, the ship may prove to be of familiar, or of totally alien design. In either case, the players must probe with sensors and perhaps go on board to uncover the mystery of the silent vessel and it's passengers.

These are only a few suggestions to start your imagination humming. The best sources for ideas are the episodes of STAR TREK themselves, and the large number of original works of STAR TREK fiction written by fans and professionals. Check the bibliography in this rules set for a partial list of STAR TREK materials, plus other useful reference books for the STAR TREK gamemaster.

A NOTE ON GALACTIC MAPPING

By this time you may have noticed that there is no master map of the galaxy in this game. In most science fiction games based around galactic travel, a great deal of time (not to mention many, many expansion books) is spent mapping the known galaxy, mainly so travel times from point X to point Y can be determined. In most games, travel time is all important, as the characters must be role-played through these periods. Random encounters may occur at these times, for one thing. Also, experience and character improvement can depend on how much time is spent in space.

A master map of the STAR TREK universe could possibly be constructed given a large enough amount of time. Indeed, Ballantine books published just such a map, "The Star Trek Maps" not too many years ago. (This work is still in print, to the best of our knowledge, if you are interested in consulting it). The people who designed that map faced the same problems we faced.

Mainly, the problems are wrapped up in the fact that STAR TREK was created as a dramatic presentation first, and a self-consistent fictional universe second. It is in travel times and relative location of planetary systems that the consistency of the STAR TREK universe most falls apart. The Enterprise travelled between locations in space that even it's fastest warp speeds would not have sufficed to cover in the lifetime of the crew, let alone a "five-year mission". Several times, writers used a star system more than once, unaware or uncaring that it had before housed an entirely different set of planets and planetary inhabitants.

Mapping just the area of space patrolled by the U.S.S. Enterprise would require explaining why that area bordered both Klingon and Romulan space (as well as Gorn space, Tholian space, the First Federation, etc.). Did any other starship have anywhere to go?

These inconsistencies were necessary to tell a good story, which was STAR TREK's major aim, after all. It makes things hard on the galactographers among us, however.

Yet, to be honest, it could have been done. If enough outcry is made over the lack of such a map, it no doubt will be done, in time. But the structure of **STAR TREK: The Role-Playing Game** is consciously designed to make galactic mapping of this scale unnecessary.

The structure of **STAR TREK: The Role-Playing Game** is episodic in nature, much like the television series itself. Our aim was to capture the flavor of STAR TREK, the television series. Therefore, as in the series, it really does not matter what happens between adventures.

An adventure situation in STAR TREK truly begins where the "teaser" of the episode begins – at the point a dramatic conflict or confrontation first arises. This may be an encounter with an alien vessel, a call from Star Fleet Command with new orders, an intercepted distress signal, etc. The day-to-day operation of a star vessel really does not matter, except where it affects an adventure situation.

For this reason, we chose not to burden the gamemaster or game players with minutiae about how often a starship must replenish dilithium crystals, or is paid. In an adventure situation, it simply does not matter. Between adventures, the crew performs duties and enjoys normal recreations "offstage". We'll visit them again when things get exciting.

Even the system for improving characters during a longer campaign series is designed to take advantage of these quiet times without having to carefully chart their length or events. The STAR TREK TV series – and this game – is a window on the exciting part of the STAR TREK universe without the tedium of the long, uneventful days in space.

For this reason, gamemasters are encouraged to prepare each scenario with a short background of what has happened "up till now". That is, start where the decision-making for the players begins. If a mysterious message is intercepted, simply tell the players what it is, where it comes from, and how long it will take to get there from where they start the game. The details are up to you. You must "set the stage" much as the "teaser" of a STAR TREK episode does for the audience.

Suggested devices for starting an adventure are messages from Star Fleet Command and Captain's Log entries (where the captain is a non-player character). Or you can simply say something like this:

GAMEMASTER: Your ship is two days out from Calvery IV, proceeding at Warp 3, on a routine call to deliver a Federation diplomatic pouch and other official greetings. Unexpectedly, your communications officer picks up a faint subspace signal from the direction of that system, calling for Federation assistance. The message is too faint to make out much else, and it is unlikely in this part of space that any other Federation vessel will intercept the signal.

CAPTAIN: Can the communications officer pick up anything else?

GAMEMASTER (to communications officer): Make a standard saving roll on Communications Procedures.

COMMUNICATIONS OFFICER (rolling): I made it! What do I hear?

GAMEMASTER: There's a lot of interference, but by switching antennas you get a bit more. The voice is male and human-sounding. You catch a reference to "the insect plague" and another to "Government House" being "besieged by the horde". Abruptly, in mid-sentence, the message stops and you pick up no further transmission.

CAPTAIN: That sounds urgent! And we're three days away at Warp 3! How far at Warp 6?

GAMEMASTER: Warp 3 is 27 times lightspeed and Warp 6 is 216 times lightspeed. That's 8 times as fast.

CAPTAIN (consulting pocket calculator): That's . . nine hours or so. (To navigator and helmsman) All right Mr. Devareux, Mr. Wickes . . . Increase speed to warp 6 on the same course. (Turning to communications officer) Mr. L'rann, send a message to Star Fleet Command detailing the situation and tell them we're on our way.

GAMEMASTER: Just so you'll know, it will take six days at this distance for a message to reach the nearest starbase.

CAPTAIN: So we'll be on our own. Very well. The science officer will consult the library computer for information on the planet. Department heads will meet in the briefing room in thirty minutes for discussion.

SCIENCE OFFICER: Captain, a computer file search on insect life on Calvert IV might be appropriate . . .

CAPTAIN: So ordered, Commander Levine. (Dropping out of character) Everybody check with the gamemaster on your own departments. I'm going to grab a snack!

By starting an adventure in this manner, much of the hassle of galactic mapping is eliminated. Since where a ship goes and what it does is largely determined by its patrol area and by Star Fleet orders anyway, very little advance planning needs be done by the players involving where the ship will go. The gamemaster should be aware, however, that he must establish distances and times to locations where the adventure will lead the players. If the trail of adventure leads to more than one world, travel times should be established by the gamemaster for best dramatic effect, just as a writer would do for the STAR TREK series!

You will find, as we did, that players really do not miss galactic mapping. Those used to games such as TRAVELLER or SPACE OPERA may find it disconcerting at first, but **STAR TREK: The Role-Playing Game** is a decidedly different type of role-playing game and requires a different approach. Once you adjust to it, you'll like it just as well as the detailed planning and mapping in other games.

And to close ***Book 2, Piece of the Action***,
the original closing words from the Fantasimulation team.

Designers Notes

What can you say about a project that absolutely possesses a design team from the time it is begun? Adventure games come and go, but the chance to do STAR TREK comes along once and once only.

As long-time fans of the series, the Fantasimulations Associates design group started this project with an advantage. Virtually every piece of STAR TREK research material available was already at our fingertips in our personal libraries. What we didn't have, we were able to borrow from other fans who were as excited about the project as we were ourselves. Thanks in this regard go particularly to Mike Drennan, who loaned us his autographed copy of Bjo Trimble's STAR TREK CONCORDANCE for the duration. Long out of print, this reference work proved invaluable in our research. We put a lot of wear on that copy (and on Greg Poehlein's as well), checking and rechecking references to series episodes. Where the game is accurate, it is largely thanks to Ms. Trimble's exhaustive work. Where the game is not, we take the rap entirely. Being fans ourselves, we were all too aware of the enormous responsibility involved in designing **STAR TREK: The Role-Playing Game**. Unlike a fictional universe created expecially for a game, the work we did had to be consistent with three seasons of television scripts AND with the popular fan wisdom that fills in the gaps in STAR TREK history the series did not show. To add to the problem, the series itself is not internally consistent, leading us time and again to make assumptions based on best guess and common sense.

Of course, since the STAR TREK series left the air, more has been added to that fictional universe than ever existed on the screen. It has been the response of fans that has made the background of STAR TREK so rich and full. Add to those 78 TV episodes 22 animated series episodes, dozens of original professional novels, a dozen or so more "official" STAR TREK publications showing plans, designs, sketches, speculations, histories, etc. and literally showing plans, designs, sketches, speculations, histories, etc. and literally thousands of pieces of fan fiction! The STAR TREK universe is huge, and getting bigger all the time.

It would be impossible to coordinate all of this material — much of it incompatible — into a game that would fit into a reasonably-sized box at a reasonable price. It was left to us to determine what was the "essential" STAR TREK material, leaving it to gamemasters and players to add whichever specialized material they preferred on their own.

Toward this end we started with some guidelines. Material in the 78 prime-time episodes was accepted as "official" — the true history of the STAR TREK universe around which the game would be based. Even here we ran into a number of inconsistencies, where one episode's assumptions contradicted another's. When this happened, we went with the information that best supported the generally held fan beliefs on the matter.

We agonized over some of these decisions, but in the long run it will be the fans who decide what is and is not STAR TREK for their campaigns. Feel free to change even basic assumptions if it suits you. Don't be offended if we state something as "fact" that does not fit with your personal images. Simply run your campaign to suit what STAR TREK means to you. It's your campaign, and we are by no means the final arbiters on such matters.

We then decided to accept the animated STAR TREK series where it did not conflict with the live-action episodes. One exception was made to this decision — the inclusion of the Kzinti race from Larry Niven's animated episode *The Slaver Weapon* . The omission is not made out of a dislike for the concept — far from it! The Kzinti are a marvelously developed truly alien race. But as great fans of Mr. Niven's *"Known Space"* series of stories, we could not help but feel that it was in that fictional universe that the Kzinti truly belonged. Thus, they do not appear in this work. Those STAR TREK fans who have not been exposed the the Kzinti outside of the animated episode *The Slaver Weapon* are encouraged to try some of Mr. Niven's *Known Space* fiction, especially the novels which form the capstone for the series, *Ringworld* and *The Ringworld Engineers*!

Next, we looked to the fans themselves (ourselves, we should say) for some of the basic assumptions made by fans that have become almost as much a part of the STAR TREK legend as the series episodes themselves. Fan fiction in the STAR TREK universe goes a million different directions. There are any number of "alternate history" STAR TREK's, if you desire. (If you do run an alternate history campaign, we'd be interested to hear about it!) But it's not possible to include material from fan-developed alternate histories in this game package.

What we did include were widely-held fan beliefs about items of general interest. We know, for example, Kirk's exact age from his dialogue in *The Deadly Years*. But how old is Spock? McCoy? Uhura? We needed these details, but the series could not provide them. (Often, the series writers couln't agree themselves. Early on, McCoy was intended to be older than Kirk. A later STAR TREK director decided, though, that McCoy was Kirk's contemporary — about the same age. This was in connection with cutting the intended appearance of McCoy's daughter Joanna out of the original cript for *The Way to Eden* . We have stuck with the original concept of an older McCoy).

Material exclusively from professionally-published STAR TREK novels and the various books of STAR TREK "non-fiction" material such as plans and histories has been adopted only when it has become a generally accepted part of the STAR TREK legend, used as official by more than one source. Some of this material is not available to us for use, other parts of it are not consistent with the established STAR TREK universe, and still more of it was judged as being pure speculation that was not an "official" or accepted part of STAR TREK lore.

Some of our own speculations herein may contradict certain STAR TREK novels, or ignore changes introduced in those novels. Gamemasters and players are free to use or not use this material as they wish, but remind you that much of the material in some STAR TREK novels is considered to be "alternate universe" material happening in a different "space-time" from the mainstream STAR TREK material. One prominent example is the late James Blish's novel *Spock Must Die!* In that novel, the Klingon problem is settled once and for all, with the Organians regressing their culture to a pre-space flight level. Yet other authors (and the later STAR TREK movies) have gone ahead with Klingon-centered novels regardless. Whether or not the Klingons are stilll a threat is up to you – in which universe do you want to set your campaign?

Mentioning the STAR TREK movies brings up another initial assumption we had to make. The setting of this game is the period of time surrounding the TV series missions – the original five-year mission commanded by Captain James T. Kirk. The many changes in the STAR TREK universe between the last animated episode and *STAR TREK: The Motion Picture* are not considered in the basic game package, though we have gone to great lengths to insure that nothing we establish here is in direct conflict with the films.

If you wish to set your personal adventure world the time period of *STAR TREK: The Motion Picture* or *The Wrath of Khan,* by all means do so. At this time, we are not ready to expand into that area, but there's no telling what the future will bring, if the interest exists. Changes for the "future" STAR TREK material is minor and can be handled by the average fan on her/his own.

Inevitably, we found places in the STAR TREK background material where no "official" answers existed for our questions. When this happened, we were forced to fall back on our own imagination and common sense. Your speculations are as good as ours in these cases, and you should feel free to add or subtract material as it suits you. Data like this was added with as much care as we could take, trying to come up with answers that made sense in the context of the larger STAR TREK universe.

An example of such material is the Gorn hand weapon. We only see one Gorn in the live-action series, and he carries no arms. *(Arena)* Surely the space-travelling Gorn have energy weapons, but of what type? If we want to make viable Gorn adversaries available in the game, we must create some of the Gorn technology, such as ships and hand weapons. We hope you will find the ones we developed to your liking. If not, develop your own speculations and send suggestions to us c/o FASA.

A lot of basic design work must be done right at first which then shapes the entire game system. The results of these decisions have affected every piece of material in this first package, and will affect all material to come.

There are three basic systems that must be planned first – character creation, character tactical movement/combat, and starship tactical movement/combat. We'd like to briefly discuss each system, and the reasons behind our design decisions for each. These systems do not just happen accidentally, nor are they selected without a lot of forethought and compromise between playability and realism.

CHARACTER CREATION NOTES

From the start, it was evident that we would have to limit somewhat the choices of character race for player characters. Early on, the decision was made to limit player characters in the basic game package to Federation Star Fleet crewpersons. Playing Klingons, Romulans, Gorn, etc. would be a lot of fun, as STAR TREK's villians were among the best characters in the series! (Witness William Campbell's portrayal of Captain Koloth in David Gerrold's episode *The Trouble With Tribbles* . Koloth is designer Guy McLimore's favorite STAR TREK villain, and *Tribbles* his favorite episode . . .) But putting all the material necessary for such play into the initial package was impossible!

Klingons as player characters implies a completely detailed background for the Klingon Empire, details on Klingon Fleet organization, Klingon ships of all types, Klingon rank and promotion, Klingon training programs and skills, Klingon arts and culture, Klingon personal habits of dress and grooming, etc. In other words, we would have to create a whole cultural heritage practically from scratch!

This is not to say that we aren't going to tackle the project! (A whole culture or two to speculate on . . . are you kidding? Of course we're going to do it)! But it wouldn't go in the package at any reasonable price. Instead, we have provided enough material to use Klingons, Romulans and the like as non-player races, or to do some limited campaign work as player characters, if you desire.

Meanwhile, we are preparing material for extensive supplements for the Klingons, the Romulans and perhaps other non-player races. These packages will contain complete background histories, character creation systems, plus new skills, ships, weapons, equipment – everything you need to play the crew of the dreaded D-7 Battlecruiser Klothos, or whatever you desire. (If you have suggestions, research material, or speculations you would like to see considered for these expansions, write the designers c/o FASA).

The player character races that were selected for the basic game are the races we know the most about from STAR TREK. There are bound to be other Federation races that serve on Star Fleet vessels, but only these were ever shown in enough detail to build a character profile for them.

STAR TREK was hampered by the fact that – although you might like to have some totally non-human crewpersons – it is extremely hard to fill a casting call for a non-humanoid being: The animated series brought forth some help in this regard, but 22 half-hour episodes is too little time to provide much background information. It is here where the gamemaster should begin to use his own imagination. What are Andorians, Tellarites, etc. really like? We'll be doing more later in this regard as well, both as expansions and as part of adventure material.

The Academy procedure for character creation came out of a need to have the player characters in decision making positions, and a desire to provide some background for character role-play. It takes a bit of time to generate a character in this game, but we've tried to make the procedure as easy and fun as possible. There may be those among you who desire a more elaborate system, providing more background data on the characters. If so, let us know and we'll try to develop one. Also planned is a more complete system expansion for creating Star Fleet enlisted personnel instead of just officers.

TACTICAL COMBAT NOTES

When trying to decide how to design this section, we remembered one old adage - when something works well, use it! And that is exactly what we did. We had been playing GRAV BALL (by FASA). We enjoyed the movement and action system. It worked well, giving the feel of simultaneous movement while retaining a simple system. Most si-move systems require paper plotting of moves in advance. While realistic results can be obtained, the system is slow and cumbersome.

GRAV BALL, on the other hand, is fast and fun when played a few times. The system is easily learned. It plays fast. Record keeping is simple. To put it simply, we liked it well enough to use it.

The sequence of play is determined by DEX. This gives the side with a "fast" character an advantage, as it should. The decision on how many AP was made simply – an "average" character should be able to move between 6 and 10 squares. This was just a number that "sounded good", based on our ground scale and established combat movement conventions. The number of points an action took was determined by calculation, doing (check our bruises from 'dive rolling'), and observing. We kept the list of actions as short as we felt possible, wanting people to be able to handle most actions, but not wanting to bog the system down with details like "eat food: 2 AP". If you want to add to the list, feel free. Just use common sense. If someone comes up with a generally useful addition to the list, let us know and it can be "officially" added to the system.

Combat evolved from our working knowledge of almost every game published on tactical combat. From the action list and character system we had it was a simple matter (although lo-o-o-o-ng!) to develop this aspect. Again, we just "worked through" what really happens in a combat situation. We drew on our own and other's experience (you should see the looks we got from neighbors) and worked out situations live.

The "to hit" modifiers list is not intended to be exhaustive. Occasionally you will not be able to fit something a character wishes to do into one of the modifiers listed. Again, feel free to add. We could not cover everything.

Weaponry was based as much as possible on research from the series. Where no data was available we made educated guesses, based on the technology level and psychological/social background of the designing race.

STARSHIP COMBAT NOTES

Some of the background on ship combat design was given in the section in question. The major reasons for the design philosophy are as follows: 1) We had to be true to the series first 2) It had to be as simple as possible to understand and play 3) It had to be fun and 'feel' right.

First of all, realize that science took a back seat in this section to STAR TREK's brand of "realism" and to playability. If we stuck to known science, combat would not even be possible at the speeds talked about. For that matter, the speeds used are almost impossible to even think about. So we went with the Roddenberry philosophy – scientific accuracy where possible, but stretch where necessary to make a good story.

The transporter and the warp drive are examples of "suspension of disbelief" in STAR TREK, where absolute scientific accuracy had to bend to those of Gene Roddenberry in creating STAR TREK itself. Again, we had the problem of conflicting material. We went with the most popular opinions when in doubt.

The next major design philosophy decision was that this was a role-playing game. We did not want another board-game with spaceships. It's been done many times. Some of them are good and we like playing them, but we wanted a whole new approach. Everyone playing the game (or, specifically, the ship combat) should be involved. Most games on the market are designed to be played by 2 players – one on each side. Ours was to have a variable number, usually 6. Each was to have duties comparable to their counterpart on a starship (specifically, the Enterprise). The key thoughts were interaction and role-playing. The players must work together to be successful. Everyone must be involved. Most of all, you had to feel that you were on the bridge of that ship.

The ship's captain has the least to do, and the most to do. A contradiction? No, it's just that he/she has no control panel to use, but yet must be aware of all those around him. He handles no systems or data, yet controls them all. His job is as it should be decision-making.

The engineer panel is not earth-shaking. Many games use a power allocation system. What we have done is make it an interesting job to decide who gets what power. Everyone is always wanting more power than the engineer can get from those engines.

The helmsman and navigator are interesting jobs. The movement of the ship is easy enough, but watch those tight turns at high speed! We felt that the easiest approach to handling turns was to be realistic. The tighter the turn, especially at higher speeds, the more the damage. Information from the series backed up this observation. The weapons and shields are straight-forward enough. Almost all of this was designed through researching the series episodes themselves.

The science and communications posts are again based on what their counterparts did in the series. It is up to the players to utilize role-playing to the fullest to obtain information about the opposition.

Remember, role-play the character you are portraying (or the position). Use the skill rolls. The game can be played as a board game, but is at its best when played the way intended.

The main thing to remember is the system was designed to cover a lot of possibilities. Feel free to adapt and change to suit your personal style of playing.

Immeasurable thanks to you, the game designers!
~ Guy McLimore Jr. ~ Greg Poehlein ~ Dave Tepool [RIP] ~

Bibliography

FASA, Star Trek: The Role Playing Game, all materials 1983 ~ 1988

Xon's Historical Treatise on the FASA STRPG
https://ufc465537.neocities.org/index.html

2017 conversation with two of the (living) three original game designers
Skip to 22:10 in this podcast
http://content.blubrry.com/trektalk/201703_30_Trek_Talk_Podcast_Episode_6_.mp3

R. Talsorian's Cyberpunk 2020 RPG

Stardate and Dragon magazines and others as appropriate

The Desilu and Filmation television series

Lincoln Enterprises and Ballantine Books, circa 1975, such as:
STTTM, STMaps, STConcordance, STBlueprints, et al.

Select modern books and publications such as: The Lost Scenes
Official Guide ... Animated Series, USS Enterpise.. Illustrated Handbook
Okuda's Chronology & Encyclopedia, others
"Inside Star Trek, The Real Story" Solow and Justman
and others as appropriate

Youtube Channels: Certifiably ingame
TriAngulum Audio Studios
Resurrected Starships
Jack Photon
and likely others

**Search "FASA, Role play, RPG"
and you are sure to find various
individual reviews of the materials.**

**Also search
"Gene Roddenberry, lecture, talk, convention"
for additional and contemporary insights
into the original series and intents.**

With thanks and regards to Captain and Crew
at Morena Shipyards for helpful suggestsions.

BIBLIOGRAPHY

STAR TREK: THE ROLE PLAYING GAME

Game Design by Fantasimulations Associates
Designers: Guy W. McLimore, Jr.
Greg K. Poehlein
David F. Tepool
Additional Development: Jordan Weisman
Ross Babcock
Original Artwork: Mitch O'Connell
Graphic Design: Jordan Weisman
Mitch O'Connell
Editors: Ross Babcock
Helena Szepe

Playtested by:
Chris Fell
Sam Lewis
Michael McAuliffe
Dave Fell
Lawrence Leeper
Karen VanderMey

STAR TREK: THE ROLE PLAYING GAME SECOND EDITION

Concept
Jordan K. Weisman
First Edition Game Design And Writing
Fantasimulations Associates
Guy W. McLimore, Jr.
Greg K. Poehlein
David F. Tepool
Second Edition Game Design And Development
FASA Product Design Staff
Wm. John Wheeler
Jordan K. Weisman
Michael P. Bledsoe
Forest Brown
L. Ross Babcock, III
Fantasimulations Associates
Second Edition Writing
Wm. John Wheeler
with Fantasimulation Associates
Production
Graphics And Layout
Dana Knutson
Jordan Weisman
Typesetting
Karen Vander Mey
Proofreading
The Companions, Inc.
Cover Art:
Rowena

THE FEDERATION

Design and Writing
Bernard Edward Menke
Rick David Stuart
Timeline Assistance
John Theisen

Editorial Staff
Editor-In-Chief
L. Ross Babcock III
Senior Editor
Donna Ippolito
Editor
Todd Huettel

Production Staff
Production Managers
Jordan K. Weisman
Karen Van Der Mey
Art Director
Dana Knutson
Cover Art
David R. Deitrick
Illustration
Todd F. Marsh
John C. Tylk
Bob Eggleton
Daniel E. Carroll
Jay Harris
Typesetting and Layout
Tara Gallagher
Pasteup
Todd F. Marsh
Dana Knutson

STAR TREK IV SOURCEBOOK

Design and Writing
William A. Barton
Tara J. Gallagher
Clare W. Hess III
Todd W. Huettel
Dale L. Kemper
Bernard E. Menke
Blaine L. Pardoe
Boy F. Peterson, Jr.
Peter Rogan
Kevin Stein
Rick D. Stuart
John A. Theisen

Editorial Staff
Editor-In-Chief
L. Ross Babcock III
Senior Editor
Donna Ippolito
Editor
Todd Heuttel

Production Staff
Cover Art
Dana Knutson
Portraits of Alien Races
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Jeff Laubenstein
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Typesetting and Layout
Tara Gallagher
Pasteup
Dana Knutson
Todd F. Marsh

Stardate, Challenge Magazines and all non-FASA reference work annotated in place.

That's the lot. Thanx 2 Gene, Crew & Desilu.

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LIVE LONG AND PROSPER, Y'ALL.

THE TRIANGLE

Concept
FASA Design Staff
Design
Fantasimulations Associates
Guy W. McLimore, Jr.
Greg Poehlein
David F. Tepool
Writing
Fantasimulations Associates
Editorial Staff
Editor-In-Chief
Wm. John Wheeler
Editing
Donna Ippolito
Wm. John Wheeler
Proofreading
Donna Ippolito

Production Staff
Production Manager
Karen Vander Mey
Art Director
Dana Knutson
Graphic Design
Jordan Weisman
Cover Art
David Martin
Graphics, Layout, And Illustration
Dana Knutson
Todd F. Marsh
Jane Bigos
David J. Hutchins
Typesetting
Karen Vander Mey

TRADER CAPTAINS AND MERCHANT PRINCES

Writing And Design
Fantasimulations Associates
Guy W. McLimore, Jr.
Greg K. Poehlein
David F. Tepool

Project Editor
Wm. John Wheeler

Editorial Staff
Editor-In-Chief
L. Ross Babcock III
Senior Editor
Donna Ippolito
Editor
Todd Huettel

Production Staff
Cover Art
David R. Deitrick
Illustration
Dana Knutson
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Book 1: Lifeform Readings
Book 2: Piece of the Action
Book 3: Memory Bank Alpha
Book 4: The Balance of Power
Character Sheets Pack
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Jack Photon supplements cover topics germain to the antiquated 1983 FASA/Fantasimulations Associates gaming system.

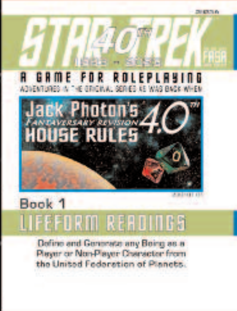
Supplements include: Story Hooks, NPC packs, Ship Recognition, Histories, Hex Grids, Intelligence reports and more, collating all the original source materials.

The one topic Jack Photon shall not cover is Starship construction and combat beyond what is presented in **Book 2, Piece of the Action**. There are many fan-edits to the ST III combat simulator system and Starship construction processes to be found. As such, your old pal Jack Photon recommends getting:

Star Trek III Starship Tactical Combat Simulator #2003
Ship Construction Manual #2204
Ship Recognition Manuals #2301, #2302, #2303

Seek out the fan variants on the internet for advanced play!

GUILD OF GALACTIC GAMEMASTERS APPROVED!



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Mostly.

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for 23rd Century Gaming

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with thanks for their now-historic and successful efforts.

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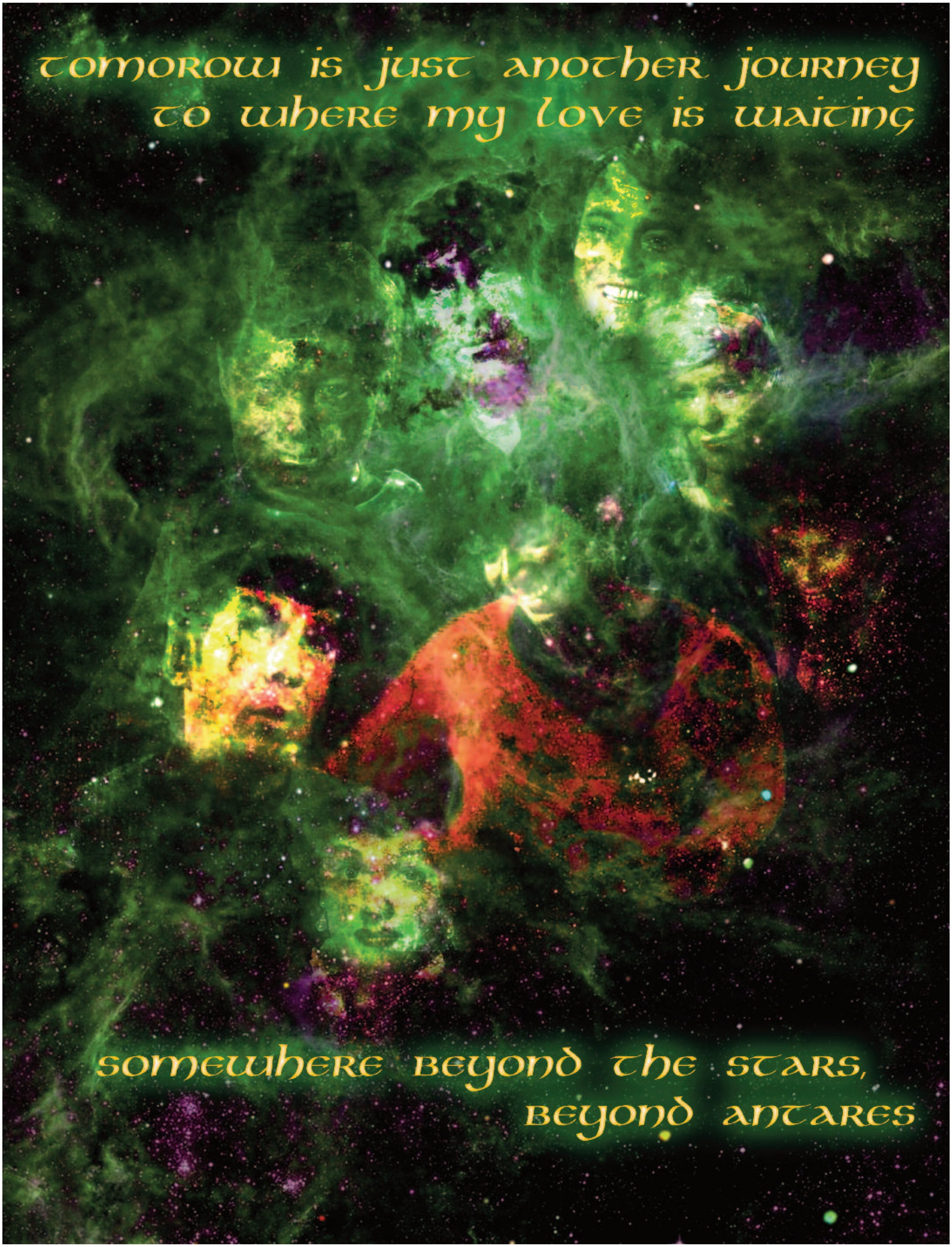
GM SCREENS
FASA-RPG
Jack Photon's
4.0th Fanta [illegible] vision
HOUSE RULES
GET YOUR SCREENS NOW!
A SUPPLEMENT COMPATIBLE WITH
STAR TREK™
THE ROLE PLAYING GAME
FANTASIMULATIONS ASSOCIATES
AS PUBLISHED BY FASA CORPORATION
"WHO SAYS I DIDN'T ROLL NAT 01?"
IT WASN'T ME! IT WAS THEM!
THEY'RE ON TO US.
GALACTIC GUILD OF GAMEMASTERS APPROVED!
"GOT SOME DICE HERE FOR YA, SPOCK."
STAR FLEET'S FINEST?
2 OUT OF 3 AIN'T SO BAD.


tomorow is just another journey
to where my love is waiting
somewhere beyond the stars,
beyond antares

Star Trek: The Role Playing Game™
Jack Photon's 4.0th Fantaversary Revision

Book 2: Piece of the Action
Mostly Shipboard Living and
Planetary Adventuring.

Mostly.

21st Century
HOUSE
RULES
for 23rd Century Gaming

"To explore strange new worlds.
To seek out new life and new civilizations.
To boldly go where none a'gone a'fore."

1983 FASA-RPG Jack Photon's 4.0th Fantaversary Revision HOUSE RULES 2023

Original Game System, FASA ©1983~1988
Jack Photon's 3rd Edition Framework, ©2022
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2023 B

STAR TREK™

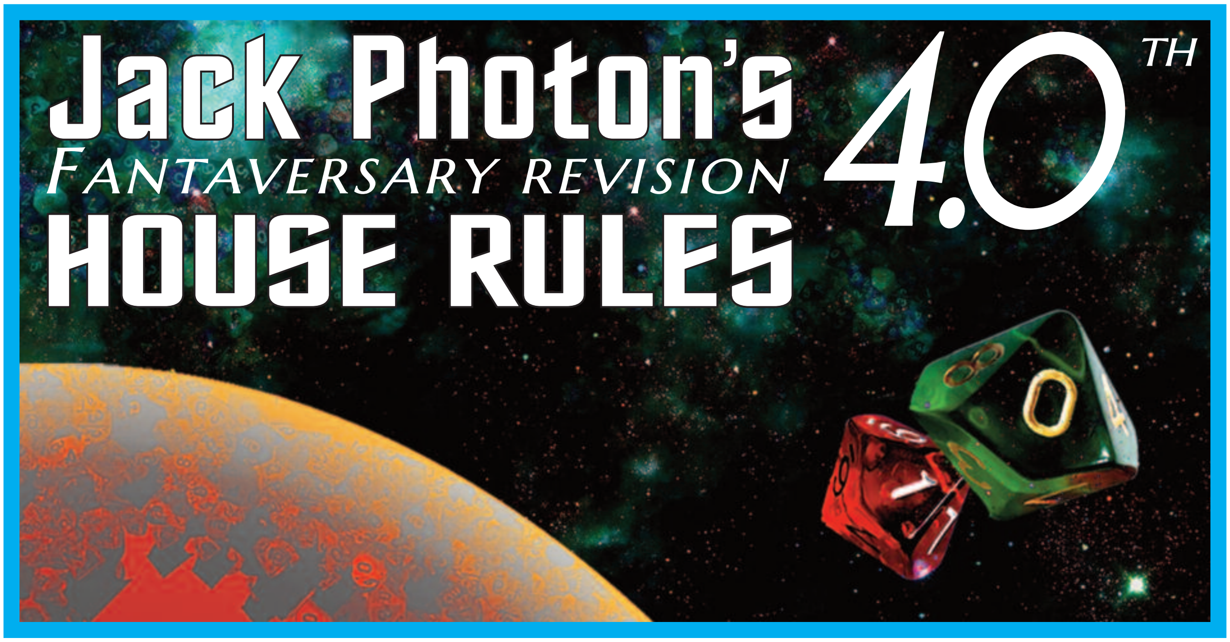
40TH

1983 - 2023

For Use with FASA Game System

A GAME FOR ROLEPLAYING

ADVENTURES IN THE ORIGINAL SERIES AS WAS BACK WHEN



Jack Photon's
Fantaversary Revision
HOUSE RULES 4.0TH

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Book 2

PIECE OF THE ACTION

Mostly shipboard living
and planetary adventuring.

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